Perlegi hunc Librum qui Inſcribitur γηροκομία βασιλικὴ in quo nihil reperio Doctrinæ Diſciplinæve Eccleſiæ Anglicanæ aut bonis moribus Contrarium.

Joh. Hall, R. P. D. Epiſc. Lond. a Sac. Domeſt.

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Γηροκομία Βασιλική

King Solomons Portraiture OF Old Age.

Wherein is contained

A SACRED

ANATOMY

Both of Soul and Body.

AND

A Perfect Account of the Infirmities of Age, incident to them both.

And all those Mystical and Ænigmatical Symptomes, expressed in the six former Verses of the 12th Chapter of *Ecclesiastes*, are here Paraphrased upon, and made plain and easie to a mean Capacity.

By *John Smith*, M. D. E. Coll. Med. Lond. Cand.

ET

E. Coll. Ænea-nasensi Oxon. quondam Com.

Nam pernicitas deserit, Confitus sum
Senectute, onustum gero Corpus, vires
Reliquere; ut ætas mala, mala merx est ergo?
Plautus.

LONDON,

Printed by *J. Hayes* for *S. Thomson*, at the Sign of the Bishops Head in St. *Pauls* Church-yard, 1666.

KING SOLOMON'S PORTRAITURE OF Old Age.

Wherein is contained

A SACRED

ANATOMY

A Perfect Account of the Infirmities of Age, incident to them both.

Anatomical Medicinal and Physical Symptoms, expelled in the fit Terms of the Latin Liquor of Life, are here Translated by Plain and Common Words

By Peter Smith, M.D. F.C.Coll. Med. Lond. Censor.

F.C.Coll. Reg. Med. Oxon. quondam Censor.

Printed by J. H. for

The Epistle to the Reader.

Hosoever thou art, into whose hands this Paraphrase may fall, know that the Author of it, is not near enough any Nobleman to put it into his hands; nor hath he face enough (as is the mode of this daring Age) to call at a distance, but could he do both, yet know also he would do neither; for he desireth not, that any thing, either of others, or his own, should be patronized beyond its own native worth,

And is himſelf as willing, as any touchy-headed Decryers of Anatomy and Anatomiſts, of all Art and Artiſts; that all the ſhame that is due to the ill managing of this good Subject, ſhould return upon his own pate; And ſuch is his Allegiance to his King, that if he can but keep off their foul fingers from Him, to which they are apt enough, he cares not how heavy they fall upon himſelf: And on the other hand, if there be any thing herein contained, of true value, it will but ſhine the brighter for the rubs and petulant endeavours of all Conductitious detractors; who being thruſt out of ſome mercenary Employments, in a few months time by their mother wit (which for want of good neighbours they greatly cry up themſelves, and

inſtead

inſtead of bad neighbours do cloſely inſinuate as if all others wanted it) can get knowledge enough in Phyſick to contemn and vilifie, and in two words (*viz. Galeniſts* and fools,) abundantly confute all thoſe worthy Perſons, who from Childhood to Gray-hairs, have been ſtudying, endeavouring, and praying; have been exerciſing both their minds and their bodies; their heads, their hearts, and their hands; that they may become expert Seconds unto Nature, and meet Combatants for all thoſe dreadful Enemies that the Sins of man have ſtirred up againſt the peace of his own body. But beſide this ſcum of ill conditioned *Zoili*, there are others alſo nipling at the heel of learned Phyſicians: Whoſe wounds though ſeemingly ſlightly inflicted, yet are

far worse than the former, and that not only because they are persons of credit and knowledge, but because they pretend Friendship, and kiss while they do the mischief. These are those, whom Birth, Education, and Industry, have so securely seated in honour, that nothing can possibly dis-throne them, but that which cast the Angels from heaven, and man out of Paradice; that abominable εὐσέβεια, which for ever did, and for ever will, set God in a resistance; and the best of their Friends cannot but in time mind them, that those smart reflexions without cause, both in private and publick, not only upon particular persons, but upon whole Societies of men, (half of whom they know not so much as by hear-say,) seem to have a tincture of that virulent

poyson,

poyſon, which as eaſily and as quickly proceeds out of knowledge, as the Worm did out of *Jonah*, Gourd; and will (if not ſpeedily prevented) ſoon wither into nothing all that content, under which they have for a ſeaſon gladly ſhadowed themſelves. And here I am afreſh put in mind of the Story of *Herod*, who perſecuted the Worlds Worthies, and becauſe he ſaw it pleaſed the People, he proceeded farther alſo: And thus proſecuting his rage and ambition, in royal Apparel, and with Popular Oratory, the Angel of the Lord ſmote him, becauſe he gave not God the glory, and he was eaten of Worms. That main and beſt end, which ſecureth all men in their undertakings, was it which firſt moved the Author hereof to ſtudy ſacred Philoſophy,

and

and to apply himſelf to the interpretation of ſuch Scriptures, as border upon that Faculty unto which he hath betook himſelf, ever ſince he hath had the judgment of Election wherein he might be moſt ſerviceable in his Generation. This was the good Seed: but falling into a barren and ill manured ſoil, hath for the preſent, produced no better a blade, than what you here ſee; which however, if it pleaſe the Lord to proſper, may bring forth as uſeful fruit as thoſe that ſeem more fair and flouriſhing. Herein old men may ſee their own natural faces, as in a Glaſs; and young men may foreſee, what (if they live) will certainly betide them in their latter end. Syſtemes and compleat Treatiſes (though out of faſhion, and conſequently neglected

neglected in this Mimical Age) are of better uſe, than fragments of Mechaniſm, and Independent Pieces of Experimental Knowledge, which by moſt men at preſent are had in greateſt honour and reputation; But in this reſpect of honour, the groundwork of what is here diſcourſed upon, far ſurpaſſeth them all; the Author thereof being the wiſeſt, and the greateſt Earthly Potentate throughout all Generations. The Portraiture that is here drawn, is done by the hands of no meaner a perſon than King *Solomon*, and may juſtly be called, ἄνευ βασιλικὴ; that ſuperabundant wiſdom in natural things, which it pleaſed God miraculouſly to enrich him withall, beyond all that were before him, or ſince to this very day; being no where more

Graphi-

Graphically delineated, than in this description of Age; whereby it plainly appears, that *Solomon* was not like that forward Traveller, who was well skilled in Forreign Countries, and in the meantime knew little or nothing of his own native Land. For as he very well knew all Vegetables, from the Cedar in *Lebanon*, to the Hyssop that springeth out of the wall, and those Creatures also of an higher rank, namely, all Beasts, Fowls, Creeping things, and Fishes; So neither was he ignorant at home; but that wherein his greatest wisdom consisted, was, that he perfectly knew himself; And that *Intus & in Cute*; both in respect of the inward and the outward man; All the secret and mysterious powers of the mind were as naked and open before

him,

him, as the visible parts of the Body are before a Vulgar Anatomist, and his purpose in this Allegory contained, doth more fully and satisfactorily declare and distinguish them, than whatsoever hitherto hath been endeavoured to that purpose, by the best of Moralists; and as for the parts of the body, those apposite Symboles which are here all along the Description brought to express them, do abundantly declare his most exquisite and exact knowledge in them all. Not only such a knowledge, as was then attained in the World, or as should in after Ages be attained by any; but such an one, as was attainable, or as the Humane Nature was able to Comprehend; and whatsoever certain Inventions in

Anato-

Anatomy have crowned the ingenious Inquirers of ſucceeding time, lie couched in ſome one or other Expreſſion of this Allegory. Among many other things, it is here clearly demonſtrated, that *Solomon* perfectly knew, and as plainly as his Figurative Method would give leave, deſcribed the Circular Motion of the Bloud; the beſt and moſt uſeful Invention of this Latter Age. And as for the Subject which is directly here intended, *viz.* the Deſcription of the Infirmities of Age, though it be Compendiouſly handled by him, yet it is Compleatly done in all things appertaining thereunto, both Moral, Natural, and Divine. And indeed, what can the man ſay that comes after the King? The moſt knowing and

ingenious

ingenious Perſons in the beſt enlightned Generations, can add no more hereunto, than they can unto their own ſtature: It only remains, that ſome ſuch, give us the full Interpretation of what is here delivered, ſince it pleaſed the King to leave it to after Ages, inveloped with a Canopy of the ſame wiſdom that indited it. And if this weak Eſſay may excite any ſuch, for the future lovingly to Correct what is here amiſs, and to ſupply what is here deficient; it will be a moſt acceptable work; but if for the preſent, Courteous Reader, it may be of any uſe to thee, as a Man, as a Schollar, as a Philoſopher, as a Phyſician, as a Chriſtian, follow the intimation that is here given thee, and I will follow thee with a good wiſh,

wish, which I am sure shall be accomplished for thee, and for all those, that honestly labour in Gods Word and Work; I mean,

I bid thee God speed.

J. S.

Errata.

PAge 24, line 13. *read* Hypallagen. p. 97. l. 22. *r.* do so appear. p. 156. l. 24. *r.* φοβερώτατα. p. 159. l. 5. *r.* Essence. p. 161. l. 29. *r.* hasting. p. 172. l. 10. *r.* *pinguescet.* p. 199. l. 16. *r.* præexistent. p. 246. l. 12. *r.* Tabernacles.

King *Solomon's* Portraiture of Old Age.

Eccles. 12. 1, 2, 3. 4, 5, 6.

Remember now thy Creator in the daies of thy youth, while the evil daies come not, nor the years draw nigh, when thou shalt say, I have no pleasure in them

While the Sun, or the Light, or the Moon, or the Stars be not darkned, nor the clouds return after the rain.

In the day when the keepers of the house shall tremble, and the strong men shall bow themselves, and the grinders cease because they are few, and those that look out of the windows be darkned.

And the doors shall be shut in the streets, when the sound of the grinding is low, and he shall rise up at the voice of the bird, and all the daughters of musick shall be brought low.

Also when they shall be afraid of that which is high, and fears shall be in the way, and the Almond tree shall flourish, and the Grashopper shall be a burthen, and desire shall fail, because man goeth to his long home, and the mourners go about the streets.

Or ever the silver cord be loosed, or the golden bowl be broken, or the pitcher be broken at the fountain, or the wheel broken at the Cistern.

THE Oracles of God are given forth that the men of God may be made wise unto salvation, and all those that through faith have themselves exercised 2 Tim 3. 15.

therein; ſhall, through grace, (the Spirit of God moving upon the waters,) obtain that moſt deſired end; but this main happineſs, is not the only, that may be acquired by ſearching the Scripture; for there are many natural things, the knowledge whereof may be better gained in one line of them, than in whole Volumes of confuſed Naturaliſts: Wherefore he that in the true fear of God ſhall apply himſelf to them, may think not only to have eternal life, but by the way alſo to obtain the true knowledge of moſt things that appertain to this. *Seek firſt the Kingdom of God, and all other things ſhall be added unto thee.* *Solomon* ſought after nothing but wiſdom, but ſee what a gracious anſwer he received, *I have given thee a wiſe and an underſtanding heart, I have alſo given that which thou haſt not asked, both riches and honour, and I will lengthen thy daies.* Thus it pleaſeth God to deal with thoſe who are ſincere, not only to give them their hearts deſire, but to ſuperadd ſomewhat they were not aware of, that may be beneficial to them in their courſe of life. Looking after the duty of man, which is compleatly ſet down in *ver.* 13. of this Chapter, I find before I come there, an Anatomical Enumeration of the ſad Symptomes of extream Old Age,

M t. 6. 33

1 King 3. from v. 5. to v. 15.

Age, And ſuch an one as I dare be bold to ſay, is not elſewhere to be found. When the wiſdom of the omniſcient God, through his Servant *Solomon* ſhall deſcribe it, why ſhould I ſearch any further? Ænigmatical I confeſs it, and exceeding difficult; wherefore I have the more diligently applyed my ſelf to the Interpretation of it. And ſo much the rather, becauſe I find various ſenſes put upon the words, and ſcarce any one hath, without interruption, carried the Allegory clean through the whole ſix verſes, as I judge it ought to be. And becauſe a miſtake in the parts of man, may cauſe a miſtake in the literal iuterpretation, I (whoſe ſtudy it hath been to be more verſed in thoſe than uſual Interpreters) do take the liberty to endeavour explication, wherein, if beſide my own ſatisfaction and content, I ſhall add any thing to others knowledge, I ſhall therein have a ſecond reward.

I am not ignorant of all, nor do I deſpiſe any, of thoſe ſeveral interpretations both Literal and Myſtical, that ſeveral learned and good men have been exerciſing themſelves in. There are that expound all this Allegory, or at leaſt ſome part of it, to a ſtate of wickedneſs, to a ſtate of poverty, to a ſtate of ſpiritual deſertion, to a famine

of bread, or of the Word of God, to the ſeveral diſperſions and Captivities of the Jews, to the deſtruction of both the Temples, and of *Jeruſalem*, to the obſtinacy of the Jews, to the unprofitableneſs of the Gentiles under their Miniſtry, to the Apoſtacy of the latter times, to the end of the world, and to the day of Judgment. I know
Heb. 1. 1. God doth at ſundry times, and in divers manners ſpeak unto the World by his Servants. And knowing this firſt, that no Propheſie of the Scripture is of any private interpretation; I know this from thence, that no private Interpreter whatſoever is to bind up others to the meaſure of his own underſtanding. Now as I am againſt no other, ſo there is no other againſt me in this that I am about. All that can be ſaid concerning it, is, that it is low, and mean, and ordinary, however (confeſt by all) it is true, genuine, and proper. And this may be ſaid of it beyond all other whatſoever; that it is the baſis and foundation of all the reſt. And every one of them receive their clarity of truth, from the Analogy they bear to this primary Interpretation; that is, that theſe ſix verſes, are a true and proper deſcription, of the natural, infirm, and decrepit Age of mankind. That which the Latines call *Ætas Capularis*; the

the age of him who is ſhortly to be taken; unto Death, or into the Coffin, or upon the Bier, or into the Grave; plainly the age of him, who is by Courſe of Nature juſt at his laſt, and muſt ere long neceſſarily yield to inevitable diſſolution. There is in that language alſo another word (which way ſoever we take its Etymology) that will excellently ſignifie unto us the Condition here delineated. And that is *Silicernium*; for whether we take it, *quaſi ſiliceâ herniâ laborans*; he that is troubled with hard ruptures, as very old men for the moſt part are, or *Sili herbâ uſurus*, he that will ſoon call into uſe ſuch an herb as was then accuſtomed to funeral entertainments, or *Silentibus brevi Cernendus*, he that will quickly be free among the dead; or laſtly, *Silices cernens*; he that by his age and infirmity is continually put in mind of his Tomb; or rather (that which ſeems to me moſt proper) he that is bowed down with age, ſo that he cannot but behold the ground whereon he now ſtands, and under which he muſt ere long be laid. And this anſwereth exactly to the Greek word, γέρων, παρὰ τὸ εἰς γῆν ὁρᾶν.

I ſhall not take upon me preciſely to limit the bounds of this decrepit ſtate, foraſmuch as they are various, in reſpect of

the dispositions of mens bodies, of their course of lives, and also of the places and ages in which they live. The lives of the Patriarks before the floud were extended
Gen.5. 27. to almost a thousand years, and yet we read not of those sad Symptomes attending them, as attend us now at fourscore. About the time of the Floud, God abbreviates the course of mans life, and seems precisely to
Gen.6.3. set it at one hundred and twenty years. I know very well most men would have this Text to be understood as a threatning only to the present Inhabitants of the Old World, that it should be so many years before the Floud swept them all away: But
Josephus lib.1.c.7. it seems to me (and not to me only) rather to intend the cutting short of the life of man for the future. For it is clear by the Context, that the Floud came upon the World within an hundred years after this
Gen.5. 32. Cha.7.6. denunciation; which was made when *Noah* was five hundred years old: And he was but six hundred years old when the Floud of waters was upon the Earth. Now God doth seldome anticipate the execution of his Judgements in wrath, but doth often prorogue it in mercy. It is as clear also, that many there were, even after the Floud, whose lives were prolonged beyond this appointed period, but they found

found it very burthenſome and grievous, and miſeries with their age dayly came upon them; the firſt-born of death about that time began to devour their ſtrength, and to take poſſeſſion of them in the right of him that was to ſucceed. And they might then be ſaid to die, in the ſame propriety of Language, as *Adam* did in the day wherein he did eat the forbidden fruit; but the Pſalmiſt gives a more exact account of this thing, which may ſtand firm to this very day: *The daies of our years are threeſcore years and ten, and if by reaſon of ſtrength they be fourſcore years, yet is their ſtrength labour and ſorrow, for it is ſoon cut off, and we flee away.* But as the univerſal Fabrick, that God at firſt extracted out of nothing, draws nearer to its end, ſo doth every particular ſtructure therein made, weaken and decay. *As the heaven and the earth wax old, ſo they that dwell therein ſhall dye in like manner.* And therefore it is not to be thought, that in theſe daies mans age ſhould be ſo long, nor ſo many arrive at it, as in the daies wherein the Bow of Univerſal Nature abode in its greater ſtrength. Nor can we exactly put the terms of any mans old age, ſo as to ſay he is now old at this preſent moment, but was not ſo before; for

Job 18. 13.

Pſal 90. 10.

Iſa. 51. 6.

it is that which creeps on by ſteps and degrees, as the ſhadow upon a Dial.

Inde minutatim vires, & robor adultum
Frangit, & in partem pejorem liquitur ætas.

Some of the flowers of age blow before otherſome; ſometime on one bough, ſometime on another; here one, there one, inſenſibly; however when perfected, you have it ſtand in full bloom, as is to be ſeen in the enſuing Analyſis.

Age is here described,

Generally, v.1. by way of { Assertion. *The evil daies come.* / Negation. *No pleasure in them.*

Particularly in Symptomes forerunning death.

Mediately in the Weakened Faculties.

Internal, v.2. { Rational { Principal. *The Sun shall be darkned.* / Inferiour. *The Light.* / Irrational. *The Moon.* / Subservient to them both. *The Stars.*

External, { Animal. v.3. appearing in the { Limbs { Superiour. *The keepers of the house shall tremble.* / Inferiour. *The strong men shall bow themselves.* / Mouth. *The grinders shall cease because they are few.* / Eyes. *The lookers out of the windows shall be darkned.* / Natural. v.4. *The beginning. The doors shall be shut in the streets, when the voice of the grinding is low.* / Mixt, v.4. later end. Of { Inward and outward in want of sleep, which binds up both. *He shall rise up at the voice of the bird.* / Vital and natural; The Active Daughters of Musick belonging to the Vital; The Passive to the Animal. *All the daughters of musick shall be brought low.*

Simple eminent affects, and most remarkable alterations, v.5. Of { The Mind. Fear { Lesser. *He shall be afraid of that which is high* / Greater. *Fears shall be in the way.* / The Body in respect of parts, { Excrementitious. *The Almond tree shall flourish.* / Aliment. { Sperm, or hard. *The grashopper shall be a burden.* / Sang. or tender. *Desire shall fail.*

Immediately, v.6. such as belong to the { Brain, and the parts arising thence from, { Without the scull. *the silver cord be loosed.* / Within the scull. *The golden bowl be broken.* / Heart, and the parts arising thence from, as they relate to { Importation. *The pitcher broken at the fountain.* / Exportation. *The wheel broken at the Cistern.*

Heb. 9. 27. *Statutum eſt in Cœlis.* It is a ſtatute in Heaven, *for all men once to dye*; by vertue of which it is, that man muſt neceſſarily paſs through all thoſe various ſteps and paſſages, from the Womb to the Tomb, that are appointed unto him in that unalterable Decree. As ſure as Man is born, ſo ſure he muſt paſs along, and unleſs it pleaſe the Lord ſooner by a violent ſtroak to take him to himſelf, he muſt go from ſtate to ſtate, from age to age, and never ſtay, till he come to theſe evil daies, and unpleaſant years, mentioned in the Text. There was, it is probable, within the compaſs of the Creation, that which had a natural property in it to preſerve mortal, yea, ſinful man without alteration. *Now leſt he put forth his hand and take alſo of the Tree of Life, and eat, and live for ever*; *Therefore the Lord God ſent him forth from the Garden of Eden to till the ground from whence he was taken.* And when the Creatures ſhall be delivered from the bondage under which they now groan, this *Panacea* may again be reſtored to its Primitive uſe: Rev. 22. 2. *Then ſhall the leaves of the Tree of Life be for the healing of the Nations*; but for the preſent, this is kept from us by a flaming Sword, and therefore not to be attained unto. And I never knew any one touch but

Gen. 3. 22, 23.

but the foot of that Mount, I mean, attempt any thing that is but analogous thereunto, but his work, if not himself, was destroyed thereby. And as our Case now is, he that made us, he can save us; he that made the Sun, can cause it to stand still or go back at pleasure; and he that made man, can uphold him without those changes, which otherwise unavoydably attend him. And in the daies of wonder (when Shooes and Garments kept equal duration with mens flesh) so he did his Servant *Moses*, concerning whom it is said, when he was one hundred and twenty years old, his eye was not dim, nor his natural force abated. But this is his own Prerogative, when he pleaseth; In his ordinary Providence, as he hath set certain bounds that a man cannot pass, so he hath set certain other that he must. *Man that is born of a woman cometh forth as a flower, he fleeth as a shadow*; he fleeth from Infancy to Childhood, from thence to Youth, from thence to Strength, from thence to Full Age, from thence to Declension, from thence to the State we are upon. And thus some interpret the second verse, *While the Sun is not darkned*, (*i. e.*) the prime of youth be not spent, the light of that Sun, is the full age; the Moon, is declining age; and the Stars, are the

Deut. 29. 5.

Deut 34. 7.

Job 14. 2, 5.

the beginning of Old Age; but this I judge not so primarily and properly the meaning of the place, as you will hear in this ensuing Explication.

Verse 1.

Remember now thy Creator in the daies of thy youth, while the evil daies come not, nor the years draw nigh, when thou shalt say, I have no pleasure in them.

THis Chapter begins with an Exhortation to the most necessary duty of man, which is pressed upon him by a double inconvenience that will certainly come upon him, and for the future render him uncapable to perform the same. The last and the greatest is that of death, described in the seventh verse: And this is the night wherein no man can work: The other is that of age, described in these six former verses. And this is the Evening or latter part of the day, wherein it

it is very ill working, and nothing can be done, in compariſon of what might have been done before; let the neglect therefore of this duty for ever be annexed to a μὴ γένοιτο, God forbid that any one ſhould defer the remembrance of his Creator untill he be not able to remember at all, or put off the work of the higheſt concern, until he be altogether unfit to perform aright any of the meaneſt: But becauſe it is my preſent deſign only to meddle with the Allegory wherein is the deſcription of Age, I ſhall not detain you in this moſt important entrance, but immediately fall upon my work. In this verſe we have only a general deſcription of that infirm condition, which is more particularly treated of in the following verſes.

Age though it naturally creeps upon all men, whatſoever their Conſtitutions and Compoſitions are, yet it is it ſelf a diſeaſe, *Senectus ipſa morbus*. And it doth certainly induce ſuch a *Cachexia*, or ill habit, that it renders us inſerviceable to our ends, and doth as it were ſet open the gates, that all that troop of enemies may enter in, which follow here in their order.

Here are two expreſſions that intimate unto us the unavoydable approach of theſe decrepit years (*i. e.*) come and draw nigh;

of

of which gemination, signifying the same thing, I may well say, as *Joseph* did upon the doubling of *Pharaohs* dream; It is because the thing is established by God, and God will shortly bring it to pass. Whosoever we are, whatsoever we are doing, whithersoever we are going, they are still coming on. Be we Male or Female, be we Jew or Gentile, be we bond or free, be we Princes or Subjects, be we what can be imagined, they come, they come: While I write, while thou readest, while we wake, while we sleep; while we abide at home, while we go abroad; while we eat, or drink, or sport; while we retire our selves, we pray, or fast; while we neglect our selves, while we defend all we can against them, they draw nigh, they draw nigh. And that man who wrote a book, *de non senescendo*, lived to his own disgrace, to see his own errour confuted in himself.

Gen. 41. 31.

Gal. lib. de Marasmoc. 2.

Here are two words also to express the continuation of this state so long as it shall be, (i. e.) *daies* and *years*; both these words signifie also the same thing in the general, *viz.* how long this state shall remain: And thus *Jacob* useth them both, in giving an account unto *Pharaoh* how long his life had continued: *The daies of the years of my pilgrimage are one hundred and thirty*

Gen. 47. 9.

thirty years, few and evil have the daies of the years of my life been, and have not attained unto the daies of the years of the life of my Fathers, in the daies of their pilgrimage. But in particular, they intimate unto us a diverſity of their continuation to divers perſons. Some men poſt over this bad way, and remain but a very little while in it; others paſs over it more ſlowly, and continue therein much longer. Some have but a few daies of labour and ſorrow, others have them prolonged out to years. As the Lord only knows what perſon in the world (for there are but few in theſe laſt Ages) ſhall be brought to this ſtate; ſo he only knows how long they ſhall remain in it. Whether this time ſhall be more or leſs, whether daies or years ſhall determine it, is to us uncertain, but this is moſt certain concerning them both, that if they be at all, ſo long as they are, they ſhall be evil, they ſhall be unpleaſant.

Evil daies.

I here take the word evil in a good ſenſe, that is, not for the evil of ſin, but the evil of miſery, the fruit of ſin. I know there be them that would have this word, if not the whole Allegory, underſtood of ſuch daies and years as wicked men, by their

their giving themſelves up to follow their own hearts luſts with greedineſs, do voluntarily bring upon themſelves; but it ſeems to me to be otherwiſe, and that chiefly from theſe two reaſons: 1. Becauſe I find nothing in the Allegory that is not competible to every particular perſon that lives to the time of this ſtate, both to the good and bad, both to the righteous and the wicked; Weakneſſes, infirmities, diſeaſes both of body and mind attend them all: *Iſaac*, *Jacob*, *Eli*, *David*, as well as thoſe who lead never ſo contrary lives, muſt bear the burden of their age, if they live to the time. It is moſt certainly true, a courſe of wickedneſs doth wonderfully haſten both old age, and death it ſelf. *The wicked man ſhall not live out half his daies*; nor ſhall he keep off decrepitneſs half the time; *his honour ſhall be given away, and his years unto the cruel.* And beſide the haſtening of theſe evils, he doth infinitely augment them both for number & quality, he ſhall have a thouſand fold more, and a thouſand fold greater: Every ſore ſhall be a Plague, and every ach ſhall be an hell unto him; but this is not the condition in this Text deſcribed, but the declenſion of mans life as a man; and that from this ſecond reaſon drawn from the Context.

Pſal. 55. 23.

Pro. 5. 9

When

when I look immediately before the description I find youth, mentioned: *Remember thy Creatour in the daies of thy youth.* when I look immediately after it, I find death, described, *The dust shall return to the Earth as it was, and the spirit shall return to God that gave it.* Now as youth and death, are appointed for all living, without any discrimination of him that sweareth, or him that feareth an oath, as terms *à quo*, and *ad quem*, of their pilgrimage; so this state also, as an intermediate stage, is as certainly appointed to them all, unless it please God before that constituted time, to give them a deliverance by immature dissolution. It is said of Old Age,

Expectata diu votisque optata secundis, Ausonius.
Objicit innumeris corpus lacerabile morbis.

Though this state be never so much desired of men, yet when it comes, it brings along with it abundance of all manner of evils, as the following Discourse will sufficiently make appear, and therefore may well be called, an evil state.

But here I must needs meet with this most obvious objection: Is not Old Age a great blessing from God, and are not gray hairs an honour, do not you call that evil, which Prov. 20. 29. Gen. 15. 15. Gen. 25. 8.

Judg. 8. 31. 1 Chron. 29. 28. God calls good? How often in Scripture is it said, *A good old age*, and counted as a priviledge? I must needs therefore here distinguish of old age; and consider it in a threefold state. First, Crude, green, and while it is yet in the beginning, while men are able to do business, and go about their employments, and this is but one little remove from manhood, and doth immediately border upon it. The second is, full, mature, or ripe age; when men begin to leave off their employments, and betake themselves to retiredness; when God hath no more work for them, and they have no more strength for him; or lastly, extream sickly, decrepit, overgrown old age; in which Job 30. 2. it may be truly said, *Old Age is perished; when their breath is corrupt, when their* Job 17. 1. *daies are extinct, and the grave is ready for them*: And this only is the state the Wise man here so Rhetorically describes. And that age which is so often called good, I take to be the second before mentioned state; and so much the rather, because in most places where it is said, *they dyed in a good old age*, it is also added, *and full of daies*; by which I understand, not a fulness of possibility, that they lived so long, as from the principles of their Composition, they could not have

have lived any longer; but a fulneſs, as I may ſo ſay, of ſatiety; they had enough of living, they lived as long as living was good, they lived to a full, ripe, and mature age; ſuch an one as would force them, to be of the mind with him in the Fable, to refuſe immortality in this preſent life; and earneſtly to deſire it in a better. There is an excellent illuſtration of this in the ſpeech of *Eliphaz*, wherein he ſets down the ſpecial Providences of God towards them that fear him, and are bettered by Correction; *Thou ſhalt come to thy grave in a full age, like a ſhock of corn in its ſeaſon:* Now if a ſhock of Corn ſtand very long in the field, it ſheds, and is ſpoiled, and the ſeaſon of it is as well loſt, as if it had been taken in too green. *Jacob*, moſt certain it is, died in this good old age as well as others; yet he himſelf ſaith unto the King, a little before he died, that the dayes of his years were few, and he had not attained the dayes of the years of his Fathers in their pilgrimage. *Tithonus?* Job 5.26. Gen.47. 9.

Had St. *Paul* departed when he had fought the good fight, finiſhed his courſe, & kept the faith, and was ready to be offered; he had ſurely dyed in a good old age, although his pulſe had not then beaten above threeſcore years; Now, moſt certain it is, 2 Tim.4. 6,7.

that the arriving at this ſtate is one of the greateſt outward bleſſings that man is capable of in this life. Nor dare I ſay otherwiſe, if it ſhould pleaſe the Lord to protract the life of man to the extreameſt point it is capable of; If he ſhould withhold his hand from puſhing down the houſe which he hath made, and let it fall to decay upon its own principles, his forbearance would be the greater, its fall would be the leſſer; however in the mean time, it would ſtand moſt ruinate, deformed, uſeleſs, and incumbred with infinite inconveniencies, that it was never lyable to before;

Heu quam continuis, & quantis, longa ſenectus,
plena malis.

But this is not all, it is not only an evil age, but there is no pleaſure in it; As there is no condition that frail mortality is capable of ſo good, that hath not a participation of evil; ſo there is ſcarce any condition ſo evil, that is not attempered with ſome good; but this ſeems to be excluded from ſuch a mercy as this. It is ſaid of a good Companion, *ſhe will do a man good, and no harm all the daies of her life*: But contrariwiſe, it may be inverted concerning this bad and moroſe Companion, ſhe will do a man evil, and no good,

Prov 31. 12.

good, so long as she continueth with him.

I have no pleasure in them.

I take *pleasure* here also in the best sense, not for any sinful content whatsoever, not for the lusts of the flesh, the lusts of the eyes, or the pride of life; but for those lawful pleasures and repasts both of body and mind, that the nature of man, while able, might comfortably have solaced her self in. The mind of man busing it self, and taking contentment in the speculation of natural causes, the body of man in all its outward senses, in all its internal appetites, sporting and refreshing it self in all proper and peculiar objects; but no such refreshments as these in old age; which is a principle so well known to be true, and so much rooted in the judgment of men; that the news to the contrary (though brought immeditely from God himself) did, at the first, startle, and put a very hard stress too, upon the faith both of the Mother, and Father of the Faithful. Pleasure in old age, (and to such persons who were as good as dead, and with whom it had ceased to be after the manner of men and women) was such an incredible thing, as both *Sarah* and *Abraham* laughed at the 1 Joh. 2. 16.

news; which laughter, as it might proceed partly from a confident affiance upon the Word of God, and a contentation thereupon, (as is usually said,) so partly without all doubt, from that reluctancy they found in themselves, and those heart-risings, and internal arguings against the reception of those joyful tydings; the spirit indeed was ready, but the flesh was weak. And this will sufficiently appear in the Text, from the grounds of their laughing, their reasoning thereupon, and from the Lords answer to them both, and what pains he takes, and what arguments he useth further to perswade them, that it should be so indeed as he had promised.

Gen.17. 15,16,17. Gen.18. 11.

Lorinus. There is a learned Commentator saith upon the word חפץ here translated pleasure: *Hebræa vox non modo voluptatem, sed etiam negotium quodlibet opusve significat*; The original word, saith he, signifieth work and business, as well as pleasure. And so indeed it doth, and may very well do in this place. When decrepit age is come, a mans work is at an end, he is able to do no more. *Solomon* saith, *there is no work, nor device, nor knowledge, nor wisdom in the grave whither thou art going*: Now old men are very near it; our English Proverb is, They have one foot in the grave; they

Eccl.3.1. Eccl.9.10

they have no more work to do, their course is finished, and their time of departure is at hand.

Verse 2.

While the Sun, or the Light, or the Moon, or the Stars be not darkned, nor the clouds return after the rain.

HAving before in general shewed this state to be miserable, he now comes to tell us wherein these miseries particularly consist. I must here be necessitated to go an untrodden path, and possibly an unacceptable one to some. As for all those Interpretations that are beside the Allegory, you know I have already waved them, and therefore shall not so much as mention them in this verse, nor in the whole ensuing Discourse. As for those that say, the Sun, and the Light, the Moon, and the Stars, signifie the several Ages that man must pass through, as was before hinted; they make this Allegory, not so much a description of old age, as of the way to it, and therefore are not to be admitted: forasmuch as this is the description of compleat and perfected decrepit age, as you

have already heard. There are that take theſe Luminaries abſolutely literally, for the ſeveral heavenly bodies as they ſtand fixed in their Orbs, and differing from one another in glory. But unto man in this ſtate they are not really darkned, for as they communicate of their light and influence equally both to the good and bad, to the juſt and unjuſt; ſo alſo, to the young and old, to the ſtrong man, and to the feeble, by reaſon of his age. And then it muſt of neceſſity be underſtood, *per Hypalagen*, only that they appear ſo to them, by reaſon of their inability to receive their light, and by reaſon of the weakneſs and dimneſs of their outward ſenſe. And ſo this opinion will in effect coincide with the following, which is indeed moſt conſiderable. And that is, that theſe lights are metaphorically here expreſſed, and do principally allude to the lights of the body. And this interpretation doth principally and primarily ariſe and take its authority from the *Chaldee* Paraphraſe; which is by Interpretation as followeth: *Antiquam mutetur ſplendor gloriæ faciei tuæ qui aſſimulatur ſoli, & lumen oculorum tuorum antequam obcæcetur, & decor maxillarum tuarum antiquam obtenebreſcetur, & pupillæ oculorum tuorum qui aſſimulantur ſtellis antequam*

antequam extinguentur. And after this, men of very great names have walked in the ſame ſteps. But as moſt other Interpreters ſeem to ſtrain the Metaphor too far, and carry it beyond the ſignification of the natural parts of man; ſo theſe ſeem to me to draw it too ſtraight, while they keep it within the compaſs of the external parts of the body. And ſo much the rather, becauſe by this Expoſition is intimated only the change of the countenance towards deformity, which is ſufficiently elſewhere expreſſed, as you will hear anon; and the dimneſs of the ſight, which is far more plainly expreſſed in the latter end of the third verſe, *nemine contradicente*. And that in this brief deſcription the Wiſe man ſhould tautologize, is not to be ſuppoſed. On the other hand, it is not to be imagined, that any infirmities appertaining to this ſtate, eſpecially thoſe of the mind, which are the greateſt of all, ſhould be neglected herein.

Omni membrorum damno major dementia.

Now as *Delilah* ſaid to *Sampſon*, *Thou haſt mocked me theſe three times, and haſt not told me wherein thy great ſtrength lyeth*; ſo might it be ſaid of *Solomon*, if he ſhould take Judg. 16. 17.

take upon him to deſcribe any thing, and do it but in part, and ſo deceitfully, that he ſhould neglect the principal part, wherin the great ſtrength lyeth; but I am otherwiſe perſwaded; that he hath here told us all his heart, and that there is no remarkable infirmity, either of body or mind, that belongs to age, which is not contained in this Allegory. Now foraſmuch as all the Symptomes in the four following verſes belong properly to the parts of the body, as you ſhall hear. I take this verſe to be a deſcription of the infirmities of the internal powers of the ſoul; and why moſt Divines do on ſet purpoſe avoid this Interpretation, which is ſo plain and obvious in this place, I cannot tell, unleſs it be becauſe they are ſo much taken up with the contemplation of the ſoul of man, that they forget it hath any thing at all to do with the body. There is a vaſt difference between the ſoul of man as it is in its united ſtate, and as it is in its ſtate of ſeparation. It is not ſent from heaven into the body as an aſſiſtant only, or like ſome tutelar angel, with Commiſſion and full power to guard, protect, and counſel that perſon, towards which it is for a ſeaſon the deputed Miniſter. For if ſo only, then it might recount and tell us, how curiouſly it wrought for us in the

the lower parts of the earth, and what wonderful *Idea's* it had before it, to have done further for us in that darksome region, had we been capable to receive them; yea, then it might accompany us beyond our pilgrimage, remaining in the body even after dissolution, and taking care for our burials.

But the Case is far otherwise, it is sent to inform the matter, and together with it to make up one *Compositum*, the man being not the one, nor the other; but most properly that which doth arise from the perfect union of them both; and whatsoever is predicable of the whole, is predicable of the parts united; whatsoever may be said of the man, may be said of the body and soul united; and as they are throughly joyned together, so they do intimately participate one with another, they are cleansed, they are defiled together; they are bound, they are loosed together; they are well, they are ill together: If *the flesh upon him have pain, the soul within him shall mourn*; they grow up together, they stand together, they decay together. How often are persons in Scripture said to grow both in mind and body, and eminently concerning our Lord, which is *instar omnium*, he encreased in wisdom, in stature, in favour

Job 14. 22.

Luk 2. 52

favour both with God and man. The ſoul is as weak as the body, both at firſt and laſt; *Senes bis pueri*, is a known maxime, and dayly experienced; and by all men underſtood of the feeble underſtanding. *Anima* comes into the world, *tanquam raſa tabula*; and it goes out *tanquam deraſa*. The ſoul appears at the firſt as an unwritten Table-book, and when it diſappears at the laſt, it becomes blanck as it was before. Job 1.21. *Jobs* pious and patient exclamation, *Naked came I out of my mothers womb, and naked muſt I return*, may be wel extended to a ſeparation, not only from the goods of the body, and eſtate, but from thoſe alſo of the mind; which hath nothing at beſt, but the begining and ground-work whereof at the leaſt, is picked up from the Communication of the outward ſenſes, and when thoſe publick Intelligencers fail, ſo alſo doth this their Lord and Maſter. And therefore by the Sun, Light, Moon, and Stars being darkned, we do poſitively aſſert to be meant, the moſt inward powers of the mind, in this ſtate do, together with the outward members of the body, weaken and decay.

But it may be here ſaid, is the whole inward man liable to this decay? Is there not ſomething in man, while in this ſtate, altogether

gether independant of the body? and perfectly free from the frailties of age? Doth not the Scriptures in many places seem to speak of renewed strength in this state of weakness, and plainly prove, *that while the outward man decayes, the inward man may be renewed day by day*; for the right understanding of this, and several such places as these are, we must of necessity distinguish of the inward man. There is the inward man of the head, (as I beg favour to say, since the soul of man there chiefly doth exercise its principal faculties,) and (since the other contradistinct term is so appositely given in Scripture, *viz.*) the inward man of the heart; plainly, there is the inward man of nature, and the inward man of grace; there is the inward man of the first birth, and the inward man of the second birth, or of Regeneration. Now I speak here concerning the former of these, that hath its decayes as age comes on, not at all concerning the latter; And as I have before excluded a state of sin from the Text, so I do here wholly exclude a state of grace. The partial falling from divine grace, is not so much as aimed at in this place of Scripture, as the total not in any. Most certainly true it is, that the work of grace stands upon its own foundation, not

2 Cor. 4. 16.

at all depending upon the principles of humanity, either for its Creation, or Renovation; foraſmuch as the holy Spirit of God, who is as much at liberty as the wind, is both the begetter, and the
Joh. 3. 4. ſtrengthener. And as a man may be born when he is old, contrary to the reaſon of *Nicodemus*, ſo alſo may he be freſh and flouriſhing in his old age; *Thoſe that be planted in the houſe of the Lord ſhall flouriſh in the Courts of our God, they ſhall bring forth fruit in old age, they ſhall be fat and*
Pſal. 92. 13, 14. *flouriſhing.* *David* prayes, *O Lord when I am old and gray-headed forſake me not*; ſpiritual deſertions, and ſpiritual manifeſtations, are immediately handed out from God, and do not at all depend upon the mutability of the nature of man, nor accompany him in his ſeveral changes.

They are only the ſeveral lights of nature, which, as age comes on, fall to decay without remedy. Now, as God, in
Gen 1. 14, 16. making of the greater world, ſaid, *Let there be lights in the firmament of heaven to devide the day from the night*; *And he made two great lights, the greater light to rule the day, and the leſſer light to rule the night*; he made the ſtars alſo: So alſo hath he done in the little world of man; he hath made two great lights, (as they are

ſet

ſet down in this verſe,) the one, *viz.* the greater, to rule the day of man; which is that clear ſhining part of man, whereby he is differed from all other created beings whatſoever, and diſcerns himſelf ſo to be; and this I underſtand by the Sun, and the Light: And the other, *viz.* the leſſer light, to rule the night of man, which is that darker diſcerning part of man, that hath very little, or no light in it ſelf, neither doth diſtinguiſh him from irrational Creatures; And this I underſtand by the Moon; he made the Stars alſo, as it followeth yet more plain.

The Sun.

By the Sun, I underſtand here the moſt ſuperiour power of the rational part of the ſoul of man, that primary light of the underſtanding, that doth at once both receive the ſpecies as they are communicated from the Imagination, and alſo render them intelligible to the mind; that pure innate light of the mind, without which no man that comes into the world, can either apprehend what is from without tranſmitted to him, or actuate any of thoſe phantaſmes which are already impreſſed. This we may ſee illuſtrated by the light of the body, which is the eye: For in the eye there

there could be no perception of any outward object, unless there were an inward implanted light in the proper Organ, which doth both dispose it to receive the visible species, and render them proportionable to the Organ, giving them thereby actual representation. Now that which this implanted light of the eye doth in vision; the same doth this Sun of the soul in the understanding. This is that which in Scripture is so often called the Spirit, or the spirit of the mind. And sometime in a distinction from the soul, as where it is said, *I pray God your whole spirit, soul and body may be preserved blameless to the coming of our Lord Jesus.* Now, because this is a difficult poynt, and hath gravelled most undertakers, I will give one Essay more, and that from Scripture-light, which hitherto may not have been taken notice of, to the present purpose; It is said, *The Word of God is quick and powerful, and sharper than any two edged sword, piercing even to the dividing asunder of soul and spirit, and of the joynts and the marrow.* Among many other truths this place doth afford us this for one; That it is very difficult to divide or distinguish between the soul and the spirit, because there is an intimate Communion and Conjunction between

Prov. 20. 27.

Eph. 4. 23
1 Thes. 5. 23.

Heb. 4. 12

between them; ſuch an one, as in ſome meaſure bears proportion with that, which is between the joynts and the marrow. Now becauſe this latter of the parts of the body, (though hard in it ſelf,) yet is far eaſier to be underſtood, then that former of the parts of the mind, let us well conſider this, and poſſibly it may give us ſome light to the other. The joynts are the turning places of the body, upon which all the actions of the limbs are performed, and therefore they are articulated ſeveral waies, according as the poſition, alteration, motion of the adjacent parts do require; theſe are the moſt viſible acting parts of the body; The marrow (by which we are to underſtand not the *medulla oſſium*, the marrow of the bones; but the *medulla ſpinalis*, the marrow of the back; for this hath much more intimate communion and conjunction with the joynts than the other hath,) is the apprehending and inſtructing part of the body, that which carries the impreſſions of external objects to the inward ſenſe, and reconveys the mandates thereof to the members of the body, to be put in execution upon the joynts. *Ejus munus eſt ſpirituum copias & motuum obeundorum inſtinctus extra deferre, atque ſenſibilium impreſſiones intus convehere*; this D. Willis, c. 19.

is the secret inward influencing part of the body. In like manner, the soul is the most apparent active part of the mind of man, whereupon all its operations, both speculative and practical, are turned and performed; of which there is a particular account given in the explication of the following word: but the Spirit is a more mysterious, and hidden power, that doth most secretly, and undiscernably, both gather up those intimations that come from without; and also give forth an effectual influence upon the whole inward man, to put all its well regulated Commands in execution upon the soul: Both which offices of this Sun (*viz.* both of reception from the outward senses, and actuation of the inward) is very clearly expressed in that speech of *Zophar* unto *Job*; *I have heard the check of my reproach, and the spirit of my understanding calleth me to answer.* As if he had said, I have received through mine ears the sound of my reproach, and an answerable impression is made upon my spirit; and the same spirit also hath drawn forth my understanding into act, towards the formation and production of an answer. And this is the constant manner of the operation of mans understanding; this is also that part of the mind, which *Aristotle*, and all

all his followers, meant by their *Intellectus agens*; this is that Candle of the Lord, or light within them, which the unsound Teachers of old, and those more innocent ones of late, would have to be a sufficient guide to everlasting life: But if it be so, it will be good hearkening to it, while it doth remain in its strength; for this Sun also, as years come on, doth certainly decline, and great must that declension be. *For if the light of the body, which is the eye, be darkness, great must that darkness be*; much more surely if the light of the soul, which is the Sun, be darkned, how exceeding great must that darkness needs be: Indeed, there must be a defect in the whole understanding, when this *primum mobile* can scarce act any longer; and therefore it is, that the Apostle speaks concerning the spiritual understanding, alluding therein unto the natural; *Having their understanding darkned, through the ignorance that is in them, because of the blindness of their heart.* When there is ignorance to receive, and blindness to guide, in this principal faculty, all those which are thereby acted, must certainly be weakned, as the next word doth clearly import.

Pelagii. Luk. 11. 35. Eph. 4. 18

The Light.

By the light therefore, I understand all those more inferiour powers of the rational part of the soul of man, that are any way set on work by vertue of the principal Agent; which is an efflux from the before mentioned Sun; the Possible understanding also, in all its operations participates in like manner of this state of weakness. Now the operations of mans understanding are various, both *ad extra*, in respect of the Objects; and *ad intra*, in respect of the will.

The first, are speculative, the last, are practical. The first (whereby the understanding is conversant about things as they have in their own nature a distinct being) are principally three. The first is perception, or the simple apprehension of an object, from the immediate impression thereof by the ministry of the before-mentioned Sun. The second is Composition, or Complexion, whereby we try, and weigh the particulars that we have before received, and compound, and divide, joyn, and separate one thing from another, as may be most convenient for the improvement of them, to their appointed ends. The third is, reason, or discourse, whereby

by we gather up to our ſelves ſomewhat farther than we underſtood before, and make our ſelves maſters of a new and better knowledge, which the things themſelves received, as in themſelves, could not adminiſter.

The laſt (whereby the underſtanding is converſant about things as they are good or evil) may alſo be reduced to three. The firſt is Conſcience, which is a reflection of the underſtanding upon a mans actions, together with a ſentencing them to be good or evil, according to thoſe unqueſtionable principles which are already received. This is the ſearch which the Candle of the Lord makes in the lower part of the belly. Prov 20. 27.

The ſecond is direction, or judgment, whereby the underſtanding doth propoſe an end to be deſired and proſecuted, the execution of which, that is, the reſting ſatisfied in, and deſiring of that end, is that which Moraliſts aſcribe to the will, and term βούλησις. The third is Conſultation, or βούλευσις, the reaſoning about the means to attain that end, together with an Inquiſition and Collation of ſeveral means among themſelves, and an election of thoſe which are moſt proper, the embracing of which, and putting them in execution, is that which they call προαίρεσις.

Now these, and all the operations of the rational soul, however they may be distinguished, have in this state an unexpressible imbecility. Be a man never so apprehensive, be he never so ingenious, be he never so rational, be he never so conscientious, be he never so judicious, be he never so prudent; when his Sun begins to set, and his light to decline, he must become weak as another man, nay, weak as a child. And this the Author of our description here, though he so well knew it, and foretold it, yet was not able to prevent it in himself, but found his own words sadly verified in his own condition. For

1 Kings 11.4. *it came to pass when* Solomon *was old, that his Wives turned away his heart after other Gods*; he that for understanding surpassed all men, since God gave unto him wisdom more than to any man, before him, or since, to this very day; And for light of

V.5,7. Conscience also, since the Lord had appeared to him twice, yet, when he was old, he fell to such irrational, sottish, senseless abominations, and that only by the seduction of women, as nothing but the frailty of age could possibly have given way unto.

Now as the soul is, by reason of age, weakned in the directing part, which usually

usually is called the understanding; so also in the executing part, which usually is called the will. Old men when they do apprehend an end, and the means to attain it, they hæsitate about prosecuting the mandates of the mind, and stand for the most part timorously and child-like at, *shall I, shall I.* I find one Commentator upon the place say, *Non fruitur libera arbitrio.* There is not a ready embracing, nor a free acting towards the attainment of what is by the understanding first dictated. Farther yet, old men are very easily drawn off, and lead aside from their own intentions, every weak suggestion is too strong for them, and takes them Captive at pleasure; and as our Saviour said to *Peter*, though in another sense, so may it be said to every one who shall live to the time, *When thou wast young, thou girdest thy self, and walkedst whither thou wouldest, but when thou shalt be old, another shall gird thee, and carry thee whither thou wouldest not:* A man shall not then be master of his own actions, but be very liable to the seductions of whomsoever shall beset him.

Lorin.

Joh 21. 18.

And thus by these two words, the Sun, and the Light, you perceive is meant, the whole rational soul, with all its powers and operations, as it may be found exercising

it self both inwardly and outwardly. And though here be two words more significantly set down, for the fuller and clearer manifestation of what is here intended, yet it might have been expressed (though not so plainly) by one word only. And therefore it is, that the *Syriack* Translation, and some followers of it, have only the Sun expressed: *Antequam Sol obtenebrescetur*: for the Sun may signifie, not only that light which is contained within its own body, but all those Emanations that illuminate whatsoever is thereby enlightned. And the womans Candle in the Gospel, by which she found her groat, might signifie, not only the light in the Candle it self, (which answereth here to the Sun,) but all the light in every part of the room also, (which answereth here to the light.) And thus we find the greater light, which rules the day of man, to be darkned; the lesser, which rules the night, is that which followeth.

The Moon.

By the Moon we must understand that other part of the soul of man, which is not in it self rational, μετέχει μὲν τοι καὶ λόγου, *Aliquo tamen modo rationis particeps.* I confess, reason may in man have some influence

influence upon it, but in its own nature it is altogether devoid of it; it is that part of the ſoul which is uſually called ſenſitive, and is common to all other animals as well as unto man; and in him is but the leſſer light, and ruleth but the darker part only, and therefore may be moſt aptly expreſſed by the Moon. It is converſant principally about thoſe ſpecies which are communicated to it, from the outward ſenſes; the operations about which are either ſimple, or compound: The ſimple operations are firſt to receive them as they are communicated from without, and then to retain them for ſo long time as it is exerciſing it ſelf about them. Secondly, To dijudicate them as they are in themſelves, and to diſcern them as they differ from all other whatſoever. The Compound operations are excellently deſcribed by a modern Author of our own; who ſaith, that the liberty of the Imagination is threefold, Either Compoſition, or new mixing of objects; Tranſlation, or new placing of them; Creation, or new making them. Now all theſe, or whatſoever elſe may be comprehended within the compaſs of the pure ſenſitive part of the ſoul, are but the operations of one faculty, and therefore by one word, are moſt fitly here expreſſed.

Dr. *Reynolds* upon the faculties, p. 24.

And

And though the Philosophers have usually distinguished them into more, as into the common sense, the Phansie, both Estimative, and Cogitative; yet really and truly they are but one: for as one superiour faculty in the superiour part of the soul, which is the understanding, could both receive, compound, and collect, as you heard before; what hindereth but the same may be done in the same manner in the inferiour? And we are not to multiply faculties without necessity: Beside the ground of their variety is not to be admitted. For they supposed the operations about their objects to be divers, attributing perception and discerning to the common sense only, dividing and compounding to the Phansie.

Now the phansie doth as well perceive and discern, nay, better too, than the common sense doth; and the common sense may be said to compound, and divide, as the phansie doth: Therefore some, more quick sighted of late, perceiving this ground not sufficient, that they might be sure to uphold *Aristotles* division of the inward senses, have found out another way, and say, that the common sense is conversant about a present object only, the Phansie about that which is absent, but this seems as weak

weak as the former, and that according to the Peripatetick Doctrine; forasmuch as the Phansie is conversant about an object only while present with it; Indeed it can detain it a while, untill it have done its work about it; so can the common sense also; And it can receive it again after it is passed away, and operate upon it anew, but for this it must be beholding to the memory, and can do nothing upon an object by its own strength, but while it hath it present with it. I argue this, only to shew that they are but one faculty, and therefore by this one word, viz. the Moon, they are both represented: Which (as the more superiour powers of the soul, and all the members of the body,) fall in this state of weakness into a miserable declension. I confess, with Aristotle, if an old man had a young mans eye, he would see as well as a young man; but I deny that, which I suppose he meant by it, that is, that he would perceive and discern as well as a young man, unless he had a young mans internal facultie also. It is one thing, to see, it is another thing, to know that a man sees, and to distinguish what colour, and what figure he sees. As age brings a weakness upon the outward sense, so that they cannot see, so also upon the inward, that they cannot

Arist. de anima, lib. 3.

cannot discern could they see; And this is most significantly expressed by old *Barzillai*, when King *David* would have had him, to feed him at his own Table; *I am*
2 Sam. 19.35. *this day*, saith he, *fourscore years old, and can I discern between good and evil? Can thy servant taste what I eat, or what I drink? Can I hear any more the voice of singing men, and singing women?* He first expresseth his inward decay, I cannot discern; and then his outward, I cannot taste, nor hear. It is proper to the outward sense, to taste and hear; but it appertains to the inward, to know whether the objects both of tasting and hearing, and of all the other outward senses, be good or evil. And thus old *Isaac* was imposed upon, not only in respect of the dulness of his outward senses, (all five of which are mentioned in that one Chapter, where his younger
Gen. 27. Son is said to come with subtilty, and take away the blessing,) but chiefly in respect of the weakness of his inward sense, wherein he was most mistaken; for *he discerned*
Ver. 22. *him not*. And thus you have the lesser light, that rules the night of man darkned, as well as the greater, that rules the day; that which is subservient to them both, is that which followeth.

The

The Stars.

By the Stars, I understand, πάντα μνημονευόμενα. All those species whatsoever, either rational or Imaginary, that (like the Stars in their Orb) stand fixedly treasured up in the memory. Now the Stars do not properly pertain either to day or night, but are distinct Luminaries from the Rulers of the day and night, and subservient to them both; and do communicate both day and night, to all inferiour bodies, of their influences, and also of their light; for although the greater light of the Sun in the day time doth cause them to us to disappear, yet they are still shining, as is sufficiently demonstrated in the Eclipse of the Sun, when that greater light is darkned; or in the narrow and long contraction of the visible species, either by art, in glasses, or naturally, if a man stand at the bottom of a deep and narrow well; then will the Stars give their light apparently at noon day. In like manner, all the species and representations of things that are past, whether they are the product of the day or night, that is, as you have heard, either of the understanding, or of the Phansie, are treasured up in one single faculty of the memory. And that the Stars have belonged

longed only to the night, hath not been a more common miſtake among the Vulgar; then that the memory belongeth only to the Imagination, hath been among the Learned. And therefore they have much troubled themſelves, and confounded others, in finding out another receptacle of the intelligible ſpecies, which they call Reminiſcency or Recordation; as though one and the ſame faculty were not able to retain the ſpecies that are of a divers nature; the ground of this miſtake hath principally riſen from this; that they have given more unto the memory, than properly doth belong unto it, in that they have aſſigned unto it three operations, *viz.* Reception, Retention, and Rendition; that this faculty doth not only keep, what is commited to it, (which indeed it doth moſt faithfully,) but that it doth alſo take into cuſtody, that which it keeps; and deliver it up again, when called for; hereby making the memory, both *Cuſtos*, and *Promus*, of the things therein contained, and giving unto it ſuch a power, as many Noble men to their Butlers, whereby they become more Maſters of what is contained in their Cellars than they that made them. Now if we will divide aright, and give unto the memory that which is its; and unto the under-

understanding and imagination that which is theirs; we shall soon understand how species of a divers nature, whether sensitive or intelligible; more or less spiritualized; and diversly circumstantiated, in respect of time, or place, or whatsoever else may alter them; may easily be contained within the same faculty without multiplication. Say we, that the understanding and imagination as they make their several species, so also they take them, and they lay them up in the memory, as they are by them altered or circumstantiated; and as they have occasion to make use of them, they look for them, and find them treasured up in the same nature, order, and manner, that they put them in; and from thence they themselves take them out again: The memory in the mean time doing nothing at all, towards either the receiving them, or delivering them up, but only exercising its passive power in the keeping of them; which keeping also is nothing else, but the duration of that impression (without any act, or endeavour, or knowledge, on the part of the memory) which the more superiour faculties make; The Memory being most truly that, which Philosophers have usually said of the Will, *Caca potentia*;

keeping

keeping thoſe things committed to its charge, with no more knowledge, or action, than the Wax doth the Impreſſion, or the Paper the writing theron made, or the Coffer the Treaſure therein repoſited: Which being ſo, it may eaſily contain things of a divers nature, and as much diverſified in reſpect of circumſtances, as the ſuperiour faculties can poſſibly make them. The ſame Coffer may eaſily preſerve the Gold of one man, and the Silver of another, till they each of them come, and take their own goods again. And thus we underſtand, that the power of this faculty in man is only paſſive, and its only work is to retain thoſe things that are committed to its charge; which work it performs with great truſt, ſo long as man abides in ſtrength, but as he declines in age, ſo alſo doth this faculty in its uſe; not only unfaithfully and confuſedly retaining the Images that are made upon it, but oftentimes letting them ſlip.

——————*Nec*
Nomina ſervorum, nec vultum agnoſcit amici
Cum quo præterita cænavit nocte, nec illos,
Quos genuit, quos eduxit.

And as it is ſaid, concerning the greater World,

World, when it ſhall draw towards its end, *The Sun ſhall be darkned, and the Moon ſhall not give her light, and the Stars ſhall fall from heaven, and all the powers of the heavens ſhall be ſhaken*; ſo alſo may it as well be ſaid in that Worlds Epitomy, Man: As he ſhall draw towards his end, his underſtanding ſhall be darkned, his Imagination ſhall be weakned, and withhold its light, and thoſe things that were fixed in the Memory ſhall fall from thence, and all the powers of the mind ſhall be broken; And this is that which to me ſeems the true meaning of this ſecond Verſe. Mat. 24. 29.

And hence we may gather how ſad mans condition muſt needs be in this laſt age of his, in reſpect of his mind. The diſeaſes and ſymptomes which do neceſſarily ariſe from the darkning of theſe Luminaries are theſe which follow. *Mentis imbecillitas, hebetudo, ſtupiditas, fatuitas*; μώρωσις, (i.e.) *ſtultitia, tarditas ingenii, judicii defectus*; ἄνοια, (i.e.) *amentia, melancholia, deſipientia, memoria imminuta, abolita.* And theſe proceed from the darkning of the ſeveral and particular lights; there are others alſo incident to age that ſhake all the powers of the heavens at once, and they are *Vertigo, Carus*, and *Apoplexia.* And theſe are the miſerable attendants of this

feeble ſtate, which is ſo much the more to be lamented, by how much the leſs it is to be helped. Sad are the infirmities before mentioned in any age, and moſt difficultly do they receive their cure; but in this they admit of none at all. Some means may be by Phyſicians uſed for the proroguing of them, and keeping them off for a time; and for the mitigation of their violent aſſaults, but for the total preventing, or the abſolute curing, let no man living hope for.

οὐδ' ἀσκληπιάδαις τοῦτο ἔδωκε θεός.

And this the enſuing Proverb doth ſufficiently confirm.

Nor the clouds return after the rain.

Having before ſhewed, that the precedent words do not ſignifie the infirmities of the eyes, I need ſay no more, to ſhew that theſe do not intimate the rheums or diſtillations from the eyes or head, falling upon any of the ſubjected parts. It will be enough plainly to declare, that theſe words ſignifie, that the miſeries and infirmities of old age, do unceſſantly and unavoidably ſucceed one upon another, as the ſhowers in *April*. And they are placed here in the midſt between the deſcriptions of the infirmities of the mind which preceded,

ceded, and those of the body which immediately follow; as having reference to them both. Whereby we must understand, that all the infirmities that appertain to this state, whether they be those of the mind, or those of the body, do immediatly follow one upon another, and one Paroxysme upon another, and that without remedy. *Nubes post imbrem*, is a known Adagy, signifying, the speedy succession of miseries upon miseries; as on the contrary is signified joy and happiness, after affliction, by that Proverb, *Post nubila Phœbus*. The infirmities in this Allegory mentioned, if they shall at any time fall upon a man in any other age, may possibly be eased: And if so, there is good hopes that they may be kept from redintegration, or ever returning more; but in this age no such hopes; if their violence may possibly be for a time remitted, yet they will as certainly return again, as the clouds after a rain in a rainy season. Now when the weather is (as we usually say) set in to rain, it is wonderful to see, how quick the clouds will rise and ride one after another, and every one, the smallest of them, pour down rain upon the earth beyond all expectation. And if there shall be any small interval between shower and shower,

and the Sun at any time begin to peep out between the clouds, it is ſoon darkned again; and the clouds return thicker and blacker, and the ſhowers greater and longer, than they were before. This is a moſt lively repreſentation of the infirmities of the decrepit age of man; wherein
Pſal.42.7 as deep calls unto deep, ſo one grief, pain, weakneſs upon another, untill all the waves and billows thereof are gone over him.

Velut unda ſupervenit undam.

And if nature ſhall be able at any time to gather up her ſelf, and unite all her force, to give a glimmering light through the darkneſs that oppreſſeth her; yet it cannot long continue, but a greater darkneſs will preſently ſucceed, as it is in the light of a Candle, which is almoſt conſumed in its ſocket; ſometime ſome light appears, then preſently it is darkned again, and ſome ſuch interchanges may be for a ſeaſon made, but it will grow darker and darker, until at length it be quite extinguiſhed. And that wonderful redintegration of the ſight and teeth of the old Miniſter in *Yorkſhire* (like all thoſe lightnings before death,) was but the laſt and utmoſt

endeavour

endeavour of periſhing nature, *Et quaſi mox emoriturae lucernae ſupremus fulgor.* If old *Jacob* ſhall be able to ſtrengthen himſelf, and ſit up in his bed, at the news of his Sons approach to viſit him; yet his weakneſs muſt return again, and he muſt lye down in his bed again, and again, until at length he lye down in the grave. Gen 48. 2.

If Art ſhall be able to contribute any thing to the preſent allay of any of the miſeries of this ſtate, yet they will ſurely and unavoidably return again; if ſeeing delightful objects, or beloved friends, if hearing of news, or pleaſant diſcourſe, or melodious muſick; if the pratling of Grandchildren may give any divertiſement or refreſhment to the mind: if a more ſutable air, convenient bathings, unctions, or frictions; if an eaſier bed, if ſavory meat, or delightful wine, or any thing elſe, outward, or inward, that Art can find out, may give any eaſe or refreſhment to the body, yet the comfort of them will be but for a ſmall ſeaſon, and the former troubles will certainly return again. Gen. 27. 4.

If a young Virgin, lying in *Davids* boſome, ſhall cheriſh him a while, and adminiſter that heat and comfort to him that Cloaths could not do, yet it muſt be but for a time, and *David* muſt grow cold, and chill, 1 King 1. 3.

chill, and comfortleſs again, and that more and more, until he be taken into the houſe of all living. And this is the great miſery that attends all the miſeries of this miſerable ſtate, that they are altogether incurable; and though ſome refreſhment may ſometime ſeem to interpoſe for a ſeaſon; yet they will all moſt certainly return again, as the clouds after the rain.

Verſe 3.

In the day when the keepers of the houſe ſhall tremble, and the ſtrong men ſhall bow themſelves, and the grinders ſhall ceaſe, becauſe they are few; and thoſe that look out of the windows be darkned.

HAving ſufficiently before ſhewed us, what the infirmities of the *mind* are in this condition, he comes now to treat of thoſe of the *body*; wherein the body is moſt aptly compared to a building, or an houſe going dayly to decay, and that cannot be repaired. And this ſimilitude of the body, whereby it is compared to

to an houſe, is moſt Scriptural. *David* ſaith, *Thy ſtatutes have been my ſongs in the houſe of my pilgrimage.* And *Paul* ſaith, *If our earthly houſe of this tabernacle were diſſolved, we have a building of God, an houſe not made with hands, eternal in the heavens.* Pſal. 119. 54. 2 Cor. 5. 1

Now the decays of this houſe in old age are many; four of which, *viz.* thoſe in reſpect of the keepers of the houſe, the ſtrong men, the grinders, and the lookers out of the windows, are mentioned in this verſe, in the Explication of which I ſhall be the briefer; becauſe what I underſtand by them all, in this verſe, hath been for the ſubſtance of them, formerly treated of by others. And here the current of Interpreters hath run much-what the ſame way, and left behind them leſs obſcurity in theſe words, which are indeed in themſelves the plaineſt that are contained in the whole allegory.

The keepers of the houſe ſhall tremble.

I could willingly conſent to thoſe, that by this expreſſion would have the ribs to be meant, were the predicate as applicable as the ſubject; the *Thorax* doth moſt ſafely keep, and excellently well defend the principal parts therein contained. And

Job 10. 11. *Job* ſpeaks of the fence of the bones, as of the ſinews: *Thou haſt fenced me with bones and with ſinews*, but how they ſhall be ſaid to tremble, is not to be made appear; foraſmuch as experience doth ſufficiently confirm, that they ſtand as fixed in old as in young, and more fixed too. And indeed their Articulation, both to the *Sternon*, and alſo (and eſpecially) to the *Vertebræ* of the back, is ſuch, that they admit of very little and obſcure motion, but not at all of this trembling. And therefore we muſt find out ſome other parts of the body which are the conſtituted keepers of the houſe; And they certainly can be no other than *the hands*. Now the anatomical hand contains not only the *Carpus, metacarpus & phalanges digitorum*, but the whole ſuperiour *artus*; all thoſe higher parts of the limbs that are divided from the trunk of the body, and therefore it is well divided in *brachium, cubitum, & extremam manum*. And theſe are they which moſt properly are ſtiled the keepers or defenders of the houſe; and that which makes it the more unqueſtionable is, becauſe they anſwer ſo directly to the ſtrong men, as it follows in the next words. And theſe hands and arms do ſeveral waies keep and defend the houſe. And there is nothing

more

more frequent in Scripture than the expreſſing of defence by the power of the hands and arms; when *Jacob* bleſſed his Son *Joſeph*, he ſpake how he was defended from them that beſet him, and ſaith, *His bow abode in ſtrength, the arms of his hands were made ſtrong by the hands of the mighty God of Jacob.* Gen. 49. 24. And as if there were no other way of expreſſing preſervation, defence, and deliverance, theſe members are almoſt alwaies mentioned, and moſt frequently attributed to God himſelf; *They got not the Land into poſſeſſion by their own ſword, neither did their own arm ſave them; but thy right hand, and thine arm, becauſe thou haddeſt a favour for them.* Pſal. 44. 3. And if there be any impotency in the hands and arms, a man is no longer able to defend himſelf; *Job* hath a moſt remarkable expreſſion to confirm this truth; If ever he uſed his defence and help to oppreſs the Fatherleſs, he wiſheth that now he might be left altogether helpleſs, and that his defenders might be taken from him, or rendred wholly unſerviceable to their ends; *If I have lift up my hand againſt the fatherleſs when I ſaw my help in the gate, then let my arm fall from my ſhoulder blade, and my arm be broken from the bone.* Job 31. 21, 22. Beſide this, they may be ſaid to keep the houſe, in that they

they provide for it, getting maintenance for the whole body, for by working they get bread. *Paul* ſaith, *Theſe hands have miniſtred to my neceſſities.* And as they do defend the houſe, and provide for it; ſo alſo they do offend whomſoever would hurt it; they do not only get, but protect, and alſo keep off the adverſary. And all this was done at once by the power of the hands of the Jews in their great neceſſity, when they were rebuilding the Temple, their hands were throughly filled, and employed in a double defence; *For they which builded on the wall, and they that bare burdens, with thoſe that laded, every one, with one of his hands wrought in the work, and with the other hand held a weapon.* Now ſuch, through the wiſdom of God, is the dexterity of the hand, that it can employ a weapon to be a better defence to a man, than whatſoever is naturally allotted to any creature beſide. And that audacious Carper at the works of God (who complained that other Creatures had naturally a defence given, and man only left weaponleſs) was ſufficiently ſilenced, when it was told him; Man had reaſon and hands, which together, can make a better defenſive or offenſive weapon for him, than all the horns, and hoofs, the tuſks, and talens, or whatſoever nature hath

2 Theſ. 3. 10.
Acts 20. 34.
Neh. 4. 17

hath more largely lent to other Creatures, can do for them. And if we throughly consider the fabrick of these parts, according unto what Anatomy doth give sufficient light unto, we shall yet farther be convinced of the truth of this matter. If we consider on the part of the bones, first the *Scapula*, and take notice that it is seated in the strong part of the back, with freedom of motion in its place, in which it is contained by the *Clavicle*, and with great advantage of moving the arm which way soever it pleaseth; that it is formed with its basis, angles, ribs, processes, Cavities, for the better seat of the muscles, and command of them to their appointed Services; that it is articulated to the *humerus per Arthrodiam*, wherein the Cavity is improportionate to the head of the *humerus*, that the shoulder may thereby with greater facility and liberty admit of all manner of motion, which it could not possibly have done, had this articulation been any firmer and closer in it self. Now that this joynt may be kept from luxation, either from it self, or from any thing might fall upon it, to which it was very liable by reason of what was before said; It is sufficiently defended by a very thick, and nervous ligament; and by the broad Tendons of four great

great Muſcles; which do ſo ſtrictly compaſs about the joynt, that by its own motion, though never ſo violent, it cannot be put out; and alſo by the Clavicle or kennel bone, which is ſo directly laid croſs over it, that it defends it from all external violence whatſoever. Again, if we conſider the *humerus*, its head, its neck, its pullyes, its Cavities, its Extuberances; If we conſider the *Cubitus*, and the *Radius*, and their divers articulation; the one being *per ginglymum*, which gives flection and extenſion with ſtrength; the other *per arthrodiam*, which gives pronation and ſupination with eaſe. Laſtly, if we conſider the bones of the extream hand; and therein the eight bones of the *Carpus*, which are joyned to the *Cubitus*, and to the bones of the *Metacarpus per arthrodiam*, among themſelves *per harmoniam*, if we conſider the four bones of the *Metacarpus*, and their articulation to the fingers *per Enarthroſin*, the fifteen bones of the fingers, and their articulation among themſelves, (for the firmer holding any thing in the hand,) *per ginglymum*. Now I cannot paſs the thumb in the general name of the fingers, without a particular and ſpecial taking notice of it; foraſmuch as that above all the reſt both in its uſe,

and

and alſo in its repute, may be ſaid to contribute chiefly to the keeping of the houſe; for it is equivalent to all the fingers, and therefore in Latine is called, *Pollex, à pollendo,* being as it were an antagoniſt graſper to the whole hand, and doth as much towards the firm holding and dextrous uſing of a weapon as all the hand: And therefore it is that idle perſons, or effeminate men, or whoſoever are unfit for ſervice in war; are called *polletrunci*; as who ſhould ſay, men that have not the uſe of their thumbs. And it was a Cuſtome among the Nations, for the Conquerours to cut off the thumbs of the Conquered, thereby rendering them diſgraced, and utterly unable for future employments either at Sea or Land. And Scriptural Story alſo ſeems to confirm this in *Adonibezek*, who ſaid, *Threeſcore and ten Kings, having their thumbs and their great toes cut off, gathered their meat under my table, as I have done, ſo God hath requited me.* Thus far on the part of the bones. Again, if we conſider on the part of the Muſcles; how they are variouſly ſhaped and formed according to their ſeveral uſes, how they are perforated according to neceſſity, how they are ſeated to the beſt advantage, how they are to one another friends or antagoniſts, how they are

Judg. 1. 7.

are derived from one part, and inſerted into another, how much ſtrength and vigour they have, how by their hormetick power and contraction into their own bodies, they can readily perform whatſoever motion the Organ is capable of; they can ſtir the limb inward, outward; forward, backward; upward, downward; they can perform adduction, abduction; flexion, extenſion; pronation, ſupination, the Tonick motion, circumgiration; and all theſe with ſo great expedition and agility, that they are much ſooner done than ſaid, yea, as ſoon done as thought on; the actions of the Muſcles keeping pace, nay, many times out-ſtripping the volubility of the mind: If we yet further conſider them in their *Tendons*, and the variety of them, how they are either ſolid, plain, round, broad, long, ſhort, one, many; or of whatſoever form may render them moſt expeditious in their motions; how they are ſtrengthned by ſeveral Ligaments, eſpecially that annulary Ligament in the Wriſt.

I ſay, if we conſider theſe wonderful things, wherein man differs from all other Creatures, and many others, which good skill in the anatomy of theſe parts would eaſily furniſh a man with, all which would be too large here to inſert; It would enforce

force us to ſay, that theſe of all the parts of man do moſt properly defend him, and may juſtly be ſtiled, the keepers of the houſe.

Now, that theſe may be ſaid to tremble, needs no words to make appear, foraſmuch as the experience of every old man doth ſufficiently confirm it. Which word doth comprehend within it ſelf all the weakneſſes, infirmities, inabilities of theſe parts in this condition: Whether they be outward, as ſtiffneſs, contraction, rugoſity; or inward, as aches, pains, numneſs, palſies, cramps, tremblings; yet notwithſtanding it hath, in a more eſpecial manner, relation to that grand ſymptome, that doth moſt certainly attend this condition; which is called, *Tremor artuum*, the continual and unavoydable trembling of the hands and arms. Now, foraſmuch as the laſt age of man is eminently above all others he paſſeth, the cold and the dry; it muſt needs incline him, and at laſt moſt certainly caſt him into this diſtemper.

For theſe two qualities, and, for ought I underſtand, theſe alone, are the natural fathers of this trembling child. If we remember how going abroad in a bitter cold morning, how drinking a great deal of cold water, or ſwimming in the water; if we know how the uſe of Poppies, Henbane,

bane, Opium, the cold fit of an Ague, and other cold things, will easily set us a shaking; if we consider that long fastings, great evacuations, especially Venerial, which do most dry the Nerves, violent heat in Feavers, fluxing by the use of Quicksilver, immoderate sweatings in hot houses, or elsehow; do cause the same distemper; we shall be induced chiefly to attribute this terrible symptome, to these two deadly enemies of a well tempered Constitution, coldness and dryness; which are so contrary to the instruments of voluntary motion, whose life and vigour consists in radical heat and moysture; that they take off their strength, and render them unable to perform their duties, making them so weak, that even the weight of the member they are to move, is now their equall Antagonist; for they going about to move the member as they usually had done, are resisted with equal force by the weight of that member; which causeth as it were a continual combate between the strength of the mover, and the weight of the moved, so that the Limb is alwaies drawn one way by that, and another way by this, which causeth a perpetual trembling of the keepers of the house; which is reckoned here as the first, and indeed is one of the most

moſt remarkable ſymptomes upon the body of man in this decrepit ſtate.

The ſtrong men ſhall bow themſelves.

Having before treated of the infirmities of the ſuperiour Limbs, he comes now to thoſe of the inferiour; the keepers of the houſe being the hands, the ſtrong men can be no other than the feet; now as the hand was divided before, ſo alſo is the anatomical foot, containing not only *tarſum*, *metatarſum*, and *phalanges digitorum*, but alſo *femur*, *tibiam*, and *extremum pedem*; and as before I ſhewed, the beginning of the hand was to be accounted from the *Scapula*, ſo here I muſt alſo tell you, that the beginning of the foot is from the *Os Ilium*. And thoſe Muſcles which are inſerted into the thigh, and have their uſe for the motion thereof; notwithſtanding their origination may be either from the back, (inwardly as the chief flector the *Pſoas*, or outwardly as the firſt extendor, *Glutæus major*,) or from the *os Ilium*, (as moſt other movers of the thigh have,) ought all to be accounted into the number of the ſtrong men. And if we well conſider the true nature of progreſſive motion, and firm ſtation on the ground, we ſhall ſoon conclude, that the inſtruments of them

both (which are none other than those we are treating of) are the best demonstrators of humane strength, and may more aptly than any other parts of the body be called the strong men. And this we may also have confirmed in the holy Writings of God; the strength of the legs, as the instruments of motion, seem to be expressed by the Prophet, when he saith, *He delighteth not in the strength of the horse, he taketh not pleasure in the legs of a man*; their strength, as they are the instruments of firm station, is excellently expressed by the Spouse, when she saith concerning her Beloved; *His legs are as pillars of marble.* And as they are the Instruments of both, you have them notified in the Story of *Peters* curing the lame man; wherein (as if *the use of legs* (both for standing and walking) *and strength* were Convertible terms, signifying the same thing; we have his cure once expressed by these words; *Immediately his feet and his ancle bones received strength, and he leaping up, stood and walked*; and presently after only by the word *strength*; *His name, through faith in his name, hath made this man strong.* I shall give but one instance more, and that most remarkable, having in it the great wisdom of God to express this thing; and that

Psal. 147. 10.

Cant. 5. 15.

Acts 3.

V. 7, 8.

Ver. 16.

that is the touch of the hollow of *Jacobs* thigh; when God would intimate to *Jacob*, his own weakneſſe, and his inability to wreſtle, and to prevaile with God and man by his own ſtrength; he ſmites him in the thigh. Thus he dealt alſo with *Paul*, who leaſt he ſhould be puffed up with his Viſions and Revelations of the Lord, (having been taken up to the third heaven, and ſo much ſpiritualized, that it was hard to ſay, whether he was in the body, or out of the body,) he had ſuch a direct contrary infirmity laid upon him, that it might ſufficiently take off all other men, from admiring him, and himſelf, from being lifted up beyond what he ought to be; *Leſt any man ſhould think of me above what he ſeeth me to be, and that he heareth of me, and leſt I ſhould be exalted above meaſure through the abundance of revelation, there was given to me a thorn in the fleſh, the meſſenger of Satan to buffet me, leſt I ſhould be exalted above meaſure*; all occaſions of glorying in his ſpirituality, was abundantly taken away, when he had a continuall memento of his carnal weakneſs, a thorn in the fleſh. And thus alſo may *Jacob*, and all *Jacobs* children, for ever, be taken off from boaſting in their own ſtrength from his prevailing with God and man; ſince

Gen. 32. 25.

2 Cor. 12. 3.

Ver 6, 7.

ever after he bare that moſt certain ſymptome of humane weakneſs, halting on his thigh, for when this part is once rendred unſerviceable, there can be no more ſtrength to contend.

And the perfect conqueſt that *Sampſon* got over the *Philiſtines*, whereby they were unable any more to reſiſt, is expreſſed, *He ſmote them hip and thigh*. Beſide, the Counſel which is given to *Joſhuah* is worth our obſerving to this purpoſe, whereby he is taught to make the horſes of the many Kings he ſhould ſuddenly ſubdue, for ever more unſerviceable, and yet to ſave their lives; *Thou ſhalt hough their horſes, and burn their Charets with fire*. Whereby we may underſtand, that if the back ſinew of an horſe hind leg (wherein the great ſtrength of theſe parts lyeth) be cut in ſunder, he is made altogether as unfit for ſervice in the war, as the Charets that are burnt. I might further yet confirm this truth by an Anatomical Enarration of the ſeveral compounding parts of theſe limbs, but foraſmuch as I did that before, in the treating of the ſuperiour *Artus*, I may the better omit it here; becauſe there is a very great ſimilitude between theſe parts and thoſe ſpoken of before; and what was there ſaid of them, as

Judg. 15. 8.

Joſh. 11. 6.

unto

unto the parts, and alſo unto the diſeaſes, may for the moſt part be tranſlated hither, and ſaid of theſe. And it is the principal argument that induceth me to believe that we are in the right in our Interpretation of theſe two ſymptomes, becauſe of the likeneſs of the parts we are ſpeaking of, and alſo of the terms to expreſs them. It is well known to all thoſe that take delight to ſearch into the wonders of God in the frame of mans body, that the Shoulders, Arms, and Hands; and the Thighs, Legs, and Feet are very much alike; ſo alſo are theſe two expreſſions, *the keepers of the houſe*, and *the ſtrong men*. The diſeaſes alſo of theſe parts in Age are much-what the ſame, and ſo alſo are the words that here expreſs them. For although we tranſlate the latter word, *Shall bow themſelves*; yet the Vulgar Latine tranſlate it, *Nutabunt, ſhall nod or ſhake*; and doubtleſs, the original words are of very near ſignification, ſo that the *Syriac* Tranſlation, and the *Chaldee* Paraphraſe upon theſe words differ very little or nothing at all, but tranſlate them both to trembling or ſhaking. However give me leave to take notice briefly of one or two things wherein theſe members differ from thoſe before ſpoken of, and Wherein their ſtrength and uſe is principally made appear.

The bone of the thigh, is of all other bones of the body the biggeſt and the longeſt; and is called in Latine, *Femur, à ferendo*, becauſe as a ſtrong man it doth ſuſtain and bear the whole weight of the body. It hath in the head of it three eminent proceſſes; The firſt is the great and the round head, which is inſerted into the large Cavity of the Hip, *per Enarthroſin*, which admits of all manner of motion, and there is detained by a double Ligament; the firſt is common, broad, thick, membranous, that doth ſtrongly compaſs the joynt about, and the other is a round, and Cartilagineous Ligament, which proceedeth out of the very head of the *Femur*, and being inſerted ſtrictly into the Cavity of the *Os Iſcii*, doth firmly hold this bone in its place, that it cannot be moved. The other two proceſſes are called, the *Trochanters*, the leſſer, and the greater; whereby the Tendons of the Muſcles moving the thigh, are more conveniently ſeated, that they may the better wheel about that Limb to whatſoever poſition they pleaſe. It hath moreover at the upper end a more ſlender part, which is called the neck of the *Femur*, which is ſo framed for the more convenient lodging of the Muſcles, and paſſing of the Veſſels, (*viz.* the

(*viz.* the Arteries, Veins, Nerves,) for the uſe and benefit of the ſubjected parts. Its form alſo is moſt remarkable, in that it is on the external or forepart, gibbous or bunching outward; on the internal or hind part, ſimous or bending inwards, which frame doth wonderfully conduce to the conveniency of ſitting, to the firmneſs of ſtanding, and to the dexterity of walking.

Laſtly, It is articulated to the *Tibia, per laxum ginglymum,* which adds very much to the expedition in motion, and is of ſuch a frame, that on the back part it leaves a moſt convenient hollow place, which we call *Poples,* the ham, for the paſſing down of the Veſſels; and on the fore part it is wonderfully defended by the *Patella,* or knee pan, as by a ſhield, the form, and name of which, this bone doth continually bear. And it is ſo much the more to be obſerved, in that no ſuch bone is in the ſuperiour *Artus,* nor in the whole body beſides; for it is articulated to no bone at all, but is kept in its place by a double Ligament, the one inward, which is that round, bloudy Ligament, which firmly annexeth it to the thigh; the other outward, which is the Conjunction of the Tendons of the four Muſcles which extend

the *tibia*, which together make a broad Ligament that doth encompass the whole knee, and strongly bind it in its place; wherein it exceedingly conduceth to the defending of the joynt, over which it is placed. For that Articulation being loose in it self (as was before said) would be very apt to luxation in sudden and great flexures of the knee, or in going down steep places; were it not by this shield bone abundantly strengthned, and sufficiently defended from all those inconveniencies.

Moreover, the Conjunction of the *Fibula*, being otherwise than that of the *Radius*, which answereth it in the arm; is well worth our observation to our present purpose; the *Radius* of the arm is Articulated (as you have heard before) *per Arthrodiam* to the *Humerus*, which renders it more expeditious as to several motions, and therefore more properly a keeper of the house; but the *Fibula* is not at all Articulated to the *Femur*, but is affixed to the external part of the *Tibia*, and doth stand as it were an underprop to that, whereby they may joyntly with greater strength support the whole body, and be the more justly called, *the strong men*. There is yet one observation more from the Anatomy of these parts, that doth with great delight

and

and content demonſtrate, that thoſe are the keepers of the houſe, and theſe the ſtrong men, and that is from the variety of their flexures; the hand in all its ſeveral joynts, is bended one and the ſame way; the ſhoulder is bended inward, or foreward, and extended outward or backward; ſo alſo is the Arm, the Hand, the Fingers, and this is for the better apprehending and comprehending any thing, and uſing any defence; and therefore they are the keepers of the houſe: The foot is bended in its ſeveral joynts, ſeveral waies; one, one way; and another, another; the thigh is bended forward, the leg is bended backward; and again, the foot is bended forward, and the toes are bended backward; and this is for the greater conveniency of going, and for the firmer ſtanding, and therefore theſe are the ſtrong men.

We might yet further and principally confirm this thing, by the ſeveral forms and uſes of the Muſcles of theſe parts; for it is not ſo much great bones, nor great veins, nor a great deal of bloud or fat, that makes a man ſtrong; but great, and ſtrong, and eminent Muſcles, they are the true indicators of ſtrength. Now theſe parts of the body have bigger, ſtronger, and more raiſed Muſcles than any beſide; and by how

how much the higher the Tendons of the Muſcles are raiſed, with ſo much the greater ſtrength muſt they needs perform their Offices, and ſo much the more declare the ſtrength of a man; and therefore we have an ordinary obſervation, and a probable one, to judge of a mans ſtrength, or weakneſs, by the elevation or depreſſion of the Calves of his legs. I might alſo add many more obſervations of the like kind; but I deſiſt, foraſmuch as a good Anatomiſt can furniſh himſelf with enough; and he that is none at all, can ſcarce underſtand theſe, when he is told.

And becauſe the great ſtrength of a man lyeth in theſe parts, therefore in his infirm and weak condition theſe parts muſt be more eminently feeble.

A Child before ſtrength comes on, and an old man after his ſtrength is departed, muſt have but little uſe of theſe members. As it was ſaid of *Aſa*, *In the time of his age, he was diſeaſed in his feet*; ſo may it be ſaid of all who ſhall live to that time. Now, foraſmuch as what was ſaid before of the infirmities of the hands, may alſo be ſaid of thoſe of the feet, I ſhall chiefly refer you thither: However, becauſe the word is here ſomewhat differently tranſlated in our Language, and we have

1 Kings 15.23.

have no reaſon to complain, foraſmuch as it doth primarily ſo ſignifie; ſo that ſome have tranſlated it, *Pervertentur*, others, *Curvabuntur*, and the Septuagint, διαστραφῶσιν; I judge there is one grand ſymptome of age that in this place, and upon theſe parts is principally aimed at; and that is the pervertion, crookedneſs, abbreviation, and alteration of the poſition, of the ſeveral joynts of theſe parts; and their inability of being reduced to a firm, ſtrait, and tonick poſture, wherein the ſtrength of a man doth wholly conſiſt. And it is wonderful well worth our obſervation, that if a man at his beſt and ſtrongeſt eſtate, ſhould be kept in that bending poſture, which age neceſſarily binds every man unto; he, in that condition, were ſcarce able to go, or ſtand, without the help of a ſtaff; and the reaſon of it is plain, becauſe the Center of gravity is not equally poyſed upon the *baſis* of the feet; but hangeth as a weight behind, and therefore had need of another *Fuleiment*, upon which it might the more firmly reſt. And therefore it is ſaid of old men: *Membra levant baculis*; when theſe members are perverted in their joynts, and the tone of the Muſcles is ſo much relaxed, that they are unable to bring them to ſtraitneſs again, there is great need of the

ſupport

ſupport of a ſtaff; for without it, there is an utter inability of going ſteadily, and ſtanding ſtrongly, which is the principal ſymptome intimated by the ſtrong mens bowing themſelves.

The grinders ceaſe becauſe they are few.

That there may in mans body be other grinding, than maſtication, or chewing the meat in the mouth; and other grinders, than the jaws and teeth, *the enſuing Diſcourſe*; and that there can be no other in this place intended, *this preſent Diſcourſe*, I hope will make appear. Grinding all men know to be performed by two hard bodies, the one immoveable, upon which the grinding is made; the other moveable, which by ſtrong Compreſſion againſt the former, and by its motion, makes the grinding; ſo that to it, there is neceſſary both theſe, *viz.* the firm ſtander, and the ſtrong mover; the upper, and the nether milſtone, as we have them often mentioned in Scripture; now anſwerable unto theſe in the mill, there are for that grinding which is performed in the mouth; two jaw bones, which are called the upper and nether *Mandible*. The upper Mandible, is compounded of eleven ſeveral bones, which among themſelves, and to thoſe adjacent

Deut. 24. 6.

jacent are joyned either *per ſuturam*, or *harmoniam*, which admit of no motion at all, and therefore this ſtands firmly in its place, and is that immovable milſtone upon which the grinding is made; the nether Mandible is one ſingle, hard, and ſtrong bone, whoſe Articulation is very looſe, for the greater liberty of motion; and it hath two or three pair of Muſcles, eſpecially the *Temporal*, which ſtrongly bring it upward, for the cloſer acting againſt the other Mandible, and one wonderful pair of Muſcles, called, the *Maſſeters*, and are derived from a double original, and beyond all others of the body whatſoever, have their ſeveral Fibres ſo croſſing and interwoven one with another, that they are ſeverally inſerted into this lower Mandible, and ſo are able to move it upward, to the right, to the left, forward, backward, and conſequently round about, and ſo performing that action which we call Maſtication or chewing, and therefore this is that other movable milſtone which makes the grinding.

Now out of both theſe, equally proceed in the ſeaſon of them a certain number of ſmall bones which we call the Teeth, which howſoever they may be numbred among the bones, yet they have

one

one or two especial properties which are competible to no other bones of the body, (at least in that measure,) whereby they are principally adapted for the grinding.

The first is, they are naked, they have no covering or skin upon them, no not so much as that common Membrane, called, the *Periostion*, which doth encompass all the bones of the body beside; and that is becaufe they might the better atting one anothers bodies, and in their attrition one against another they might feel no pain; but I must needs here take notice that the words of *Job* seem to be against me, where he saith, *I have escaped with the skin of my teeth*; This is easily answered, if we consider the two parts of the Teeth, *viz.* the *Basis*, and the *Radix*; *that*, is the part which eminently appears white above the Gums; *this*, is that part which is within the Gums, and stands fixed in the Mandibles: Now by *Jobs* skin or covering of his teeth, it is apparent he meant the gums which cover the roots of the teeth; his sores, and his boyls were so great and terrible upon him, from the sole of his foot to his Crown, that there was no part of the skin of his body to be seen, but only about his teeth, which in all such Cutaneous diseases doth for the most part wholly escape.

Job 19. 20.

The

The ſecond is, they have the veſſels which convey life and ſenſe unto them, contained only in the inward parts, that the outward parts may be freer and better to grind.

The third is, that they are growing or encreaſing ſo long as man lives, ſo that what is worn away of them by their continual attrition and manducation; is dayly repaired, otherwiſe they would grow ſhorter and ſmoother, and not be ſo able to perform their work; and this is a wonderful piece of the wiſdom of God in nature, which Art cannot poſſibly reach unto; and therefore becauſe they cannot make their mills grow, as they dayly decay by grinding; they are fain to ſupply that want, by often pecking their milſtones, and at length changing them; and by thoſe means as it were renew their teeth, without which they were able to do nothing at all.

The laſt I ſhall mention is, that the teeth of all the bones of the body are the hardeſt, and will ſuffer the leaſt from any other bodies whatſoever, and therefore are the fitter for ſuch a work as this. A milſtone is of all other ſtones ſuppoſed to be the hardeſt, and therefore *Job* when he had expreſſed the hardneſs of the heart of the

the Leviathan by a ſtone; as if he had not ſaid enough, he farther adds one degree more, yea, ſaith he, *As hard as a piece of the nether milſtone.* Theſe ſhort obſervations may ſuffice to teach us in the general, that the teeth alſo may be called the grinders. If we yet more particularly conſider them, and how they may be divided, we ſhall have a farther light into this matter. The teeth are of three kinds, either *Inciſores*, *Canini*, or *Molares:* The firſt are the broad fore-teeth; the ſecond are the next round teeth, which are uſually called the eye-teeth; the laſt are the great double and hindermoſt teeth; the firſt, bite or cut the food; the ſecond, break or bruiſe the food; the laſt, chew or grind the food. And this diſtinction alſo may be found in Scripture, the firſt are alluded to, where it is ſaid, *The Prophets bite with their teeth.* The ſecond, where it is ſaid, *He hath the cheek teeth of a Lion:* And both theſe, where it is ſaid, *There is a generation whoſe teeth are as ſwords, and their jaw teeth as knives.* The laſt is alluded to, where it is ſaid, *While the fleſh was yet between their teeth, ere it was chewed, the wrath of the Lord was kindled againſt the people.* They had bit the fleſh of the Quails, and had paſſed it from the firſt

Mic. 3. 5.
Joel 1. 6.
Prov 30. 14.
Num. 11. 33.

teeth

teeth, to the laſt, which are the grinders, and there it ſtuck till they died. And thus at length we are fallen upon the true, proper, and ſtrict inſtruments of grinding; we have hitherto been ſhewing the whole frame of the mill, and how ſeveral parts do wonderfully contribute towards this work, and now we are come to thoſe parts, wherein the cloſe pinch of grinding lieth, and that is in the great, broad, and hindermoſt teeth, which from the day of the writing of this Allegory, to this preſent time, have ever among Anatomiſts retained the name of grinders.

And that not without exceeding good reaſon, for the form and figure of theſe, above the reſt doth abundantly ſhew that theſe are the fitteſt of them all for this work; for theſe are bigger, larger, broader every way; eſpecially at the top, where their form is much-what like to that of a mill, where alſo they have eminent aſperities, & protuberances, exactly anſwerable to the roughneſs of the Milſtones; by which the grinding is far more eaſily and perfectly performed; beſide, theſe are more firmly inclavated, and infixed into the jaw bones, by treble, or quadruble roots; whereas all the reſt are but by ſingle, or double at the moſt; and being more ſtrongly rooted,

they are the fitter for more eminent ſervices; Laſtly, and chiefly, the experience of every man doth ſufficiently confirm that this is the proper uſe of theſe teeth; and that the more ſolid food which needs greater manducation, cannot be ſufficiently comminuated for chyle, or ground low enough for the ſtomack, untill theſe teeth have done this work upon it. And thus it is plain, that the jaws, and teeth, and eminently theſe laſt mentioned, are appoſitely and elegantly called the grinders; which how much ſervice they do to man while uſable, and how much detriment and loſs they bring upon him when they ceaſe from their uſe, is well known to all men.

Heb. 5. 14 *Strong meat belongeth to men of full age,* ſaith the Author to the Hebrews. It belongs to them, and only to them, becauſe they alone, have, as I may ſo ſay, their mill in tune, their mouth full of ſtrong teeth, and ſet directly one againſt another, whereby they may bring the ſtrongeſt meat into a meet conſiſtence, and a due preparation for eaſie digeſtion in the ſtomack. But it may here be ſaid, there are many Creatures that are not thus ſtrongly armed, and have not ſo many teeth, nor thoſe they have ſo well ſet, as your poſition ſuppoſeth they ſhould be, for the due

preparation

preparation of the meat; And these are the Sheep, the Goat, the Cow, the Deer, and all other Creatures that have teeth only on the lower Jaw, and none at all on the upper. These have no antagonist grinders, nor contra-acting milstones, and yet these Creatures in their full age, eat as solid food, and as hard of digestion, and withall, do as well with it, as they that are better provided in this respect; to this I must needs answer, it is very true, so that from hence we may take occasion to admire the wisdom of God in the various formation of several Creatures, tending notwithstanding to the use and benefit of them all. However this in these Creatures is a want, and must have stood for a want, had they not been abundantly supplyed in another kind. For all those Creatures that are thus deficient in their teeth, and only those; are they which chew the Cud, which is a reassuming the food into the mouth, and a grinding of it a fresh the second time, so that they are fain to do that at twice, and to be three or four times as long about it, as those creatures whose grinders are better placed; neither would this suffice alone, for if they should be chewing their meat all the day long with the teeth that they have, it would never be sufficiently

ently prepared for nouriſhment, were there not yet a farther preparation in their bodies for that purpoſe; and that is, that thoſe Creatures, and only thoſe, have a peculiar veſſel in their bodies aſſigned for this work, and that is that which Anatomiſts call, *Omaſum*, and our Butchers, the *Read*; wherein the meat muſt be macerated for a certain ſeaſon, and by the *fermentum* therein contained, brought to ſuch a Conſiſtence, that afterwards by a little chewing in the mouth again, it may be committed to the ſtomack with the ſame hopes of ſucceſs, that in other Creatures that are toothed on both ſides, it is committed at the firſt: Now, man being in the number of theſe laſt mentioned, muſt for the due preparation of all ſtrong food, truſt alone to his grinders; ſo that the time of ablactation of the child, and of alteration of the diet of the old man, is moſt certainly indicated by the beginning and ceaſing of the uſe of the Teeth; milk is fit for babes, before their teeth come; and old men when their teeth decay, are again *become ſuch as have need of milk, and not of ſtrong meat.*

Heb. 13. 14.

Now by the ceaſing of the teeth we muſt underſtand, all thoſe infirmities that are incident to them by reaſon of age, whether looſeneſs, hollowneſs, rottenneſs, brokenneſs,

brokenneſs, blackneſs, foulneſs, ſtench, wormeatenneſs, excreſcency, or whatſoever elſe may be any impediment to them in their uſe. But the chief ſymptome here intended is, the falling out, and conſequently, the paucity of the teeth; which is gathered from the reaſon here annexed, *Becauſe they are few*; which is very well tranſlated in our Language, following the Vulgar Latine; *Otioſæ erunt molentes in minuto numero.* For although the Original word do primarily ſignifie no more than becauſe they are diminiſhed, yet it muſt of neceſſity be underſtood, in reſpect of their number; for otherwiſe they are not diminiſhed, but do grow ſo long as they remain in the head, even to the extremity of old age. But as age comes on, the natural moyſture at the root of the teeth is conſumed, and a preternatural is diſtilled thither in its room, which doth by degrees relax them in their ſockets, and at length quite expell them: And when ſome of them are thruſt out, and but a few left in, it is eaſie to conceive from what hath been ſaid, how the chewing in the mouth ceaſeth; yea, it ceaſeth more, when the teeth are few, than when they are none at all. For then the Gums might act one againſt another, and, foraſmuch as they grow harder in old age, might

do ſomething weakly towards the chewing of the meat; but when they are few, they hinder thoſe from working in the leaſt, and having no antagoniſts (were they firm in the head which they are not) are not able to work themſelves, and ſo the whole grinding ceaſeth; which is a very great and moſt certain ſymptome of this ſtate of weakneſs, and yet is neglected by our great Maſter of natural knowledge in this kind, in his beſt enumeration of the diſeaſes of age.

Hippo.l.3. Apho.ult.

And thoſe that look out of the windows be darkned.

That by this clear expreſſion the eyes and the infirmities of them in old age, is intimated unto us, was never yet, and I perſwade my ſelf never will be, in the leaſt meaſure doubted or queſtioned.

Foraſmuch as they are the only true, and proper Organs of ſeeing; however, it will be well worth our labour to conſider, how the eyes may be called, the lookers out of the windows. One may be ſaid to look out of a window in a double ſenſe, either when he looks through the glaſs of the window, and through the pellucidity of that moſt refined body, diſcerneth thoſe things which are without; or when he

he looks through the open Caſement, or through ſome open hole of the window, wherein there is nothing at all interpoſeth between him and the object. Now in both theſe ſenſes may our interpretation well be made. For the Explication of it in the firſt ſenſe, we muſt take notice of all thoſe tranſparent parts, through which the viſible ſpecies muſt of neceſſity paſs before viſion can be perfected: For as a man could ſee nothing through a window, were it not made of glaſs, or of ſome body alike Diaphanous: So neither could he perceive any thing with his eye, were not the parts thereof, through which paſſage is made, of the very ſame nature. Now, the parts of the eye, through whoſe bodies the viſible ſpecies muſt paſs that they may be diſcerned, are either the *humours*, or the *Tunicles*; The *Humours* are three, the *watry*, the *Cryſtalline*, and the *glaſſie* humour, ſo called by Anatomiſts; and you may perceive by their names that the ſubſtance of them all is Diaphanous; all which, howſoever they wonderfully differ among themſelves, and ſeveral waies contribute to the uſe and benefit of the eye, and conſequently are made variouſly inſtrumental unto viſion, yet they all agree in this one thing, that they are tranſparent;

and that they must of necessity do, forasmuch as into their bodies, and through their bodies, must the visible species pass, before they can perfectly be discerned by any man. And if one opacous, or darksome body interposeth, they can go no further, but there they must determine their course.

The *Tunicles or Coats*, through which the sight is made, are only two, for although there are other Tunicles of the eye, which conduce wonderfully to the sight, (as you shall hear beneath,) yet those through which the species pass, are only the *Tunica Aranea*, and the *Cornea*. The first is so called from the similitude of a Spiders Web, because it is most fine and subtile, and being derived from the Brain and Optick Nerve, it becomes a most tenuous vestment for the humours; and is so pellucid, and transparent, that among the Learned it bears the name of *Speculum*. The other is called, *Sclerotica*, or *Cornea*; and that is, that hard and horny Membrane, which being derived from the *dura mater*, encompasseth the whole body of the eye, without any perforation; and on the back part, behind the sight of the eye, is more obscure and dark; but on the forepart, is far more plain, polite, and

diaphanous,

diaphanous, that the ſpecies may paſs through its body moſt pure and unaltered. And now I am come to that part of the eye, that doth moſt aptly reſemble the glaſs of the window, by reaſon of which a man may be truly ſaid to look through a window, and an old man, *to ſee through a glaſs darkly*, wi hout the uſe of Spectacles, which ſome would fain have here to be underſtood; of whoſe opinion I cannot perſwade my ſelf to be, becauſe it is uncertain to me, whether thoſe helps of nature were then, and there, in uſe: And moſt certain it is, that they are without the compaſs of the Allegory, and are not part of that houſe or body of man, whoſe decay is here ſo lively repreſented. Beſide, this Tunicle hath the ſame uſe to man, in his perfect ſtate, that Spectacles have in his imperfect. And this be confident of, that there is nothing that Art hath found out to help man in his decayes, that hath not its footſteps firſt in Nature, and is not an imitation of thoſe things in man, that were moſt compleatly in him in his perfection. And here I muſt of neceſſity go one ſtep farther, than our common Oculiſts; who aſcribe to this part but a low and a mean office, which is only to keep the humours in their place, or at the beſt, 1 Cor. 13. 12.

to

to defend the inward parts from external injuries; but without all queſtion, it hath this farther, and more noble uſe, *viz.* ſo to diſpoſe and order the viſible ſpecies, that they may in the moſt convenient manner, make their impreſſion upon the proper Organ of ſight; and this their Craſſitude or thickneſs, together with their Convexity or bending outward, doth ſufficiently make appear. I here all along retain the term of the Ancients, *viz. viſible ſpecies*, as being moſt known, and that by which I may be better underſtood among moſt, to whom this Paraphraſe may come, though it be not ſo proper, and the Conceptions which they had about them, are not to be admitted; for there is no new Entity, either material, or immaterial, caſt off from the object, diſtinct from it, & from the light, which is the cauſe of viſion in the eye; by the *viſible ſpecies* therefore, I mean no more, than the ſeveral beams of light being ſo reflected from the object, as that they become fully fraught with the repreſentation of it, (not only in reſpect of the proper object of ſight, which we call colour, but of theſe common ones alſo, which we call ſituation, figure, diſtance, bigneſs, and the like,) and have a compleat power of impreſſing the ſame upon the *Retina*, which

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is the ſtrict and proper Organ of ſight, and is nothing elſe than the dilation of the Optick Nerve all about the bottom of the eye. For the better underſtanding of all which, we muſt know that the ſpecies paſs along the medium in a Pyramidical figure, and as they are caſt off from one point of the Superficies of the object in a Cone, ſo they muſt be reduced again in the ſame Conical figure upon one and the ſame point of the Organ; which reduction is performed by that collection, refraction, and direction, which hapneth to them in thoſe ſeveral pellucide bodies through which they paſs, and primarily (while the eye remains in its vigour) in the *Tunica Cornea*; but as age enfeebleth the eye, the form and figure of it becomes more plane and depreſſed than it was before; and the Cryſtalline humour, which had a power of reducing it ſelf, and conſequently the whole body of the eye, to a more oblong and Convex ſhape, becomes dry, and altogether unable for ſuch an end; ſo that now the Species caſt off from the object at a convenient diſtance, cannot be brought to a Cone upon the Organ, which muſt needs breed a confuſion in the ſight: To avoid which confuſion, old men hold the object that they look upon at a greater diſtance from the eye,

eye, becauſe ſo, the preſent Conſtitution of the eye can better regulate the Species; and thus alſo Spectacles are placed before the eye to collect, refract, and guide the Species, that they may point together upon the *Retina*; which by how much the thicker, and more Convex they are, by ſo much the more powerfully do they do this work: And therefore as age encreaſeth, and the form of the Cryſtalline humour, and of the whole eye is more depreſſed, ſo much the thicker, or ſo much the more Convex, or both, muſt the Spectacles be made, that they may be anſwerable to the age. And this is done only in imitation of that, which is far more perfectly done while man abides in ſtrength, by the hard Membrane we are now treating of; and this is the firſt ſenſe in which the eyes may be called the lookers out of the windows.

The other is, that whereby they may be ſaid to look *through the holes* of the window, when there is an open paſſage, and nothing at all interpoſeth between them and the object. And this indeed is the moſt proper reading of the words. בארבת ſignifieth *in foraminibus*, or as the Vulgar Latine, *per foramina*; and the Seventy, ἐν τοῖς ὀπαῖς. Now there are ſeveral waies, where-

whereby the eye may be ſaid to look in, or through the holes.

The firſt is, in reſpect of their ſeat, or the form of that place, in which they are fixed in the head. And if we ſhould ſtrictly hold the word to that interpretation of *in foraminibus*, or the lookers in the holes, nothing could be ſo applicable as this; and hereunto to be ſure the *Chaldee* Paraphraſe hath reference, *Qui vident per Cancellos Capitis tui*, thoſe that look in, or through the ſtrong bounds of the head, which can be no other, than thoſe firm holes, or arches, which are made in the fore-part of the head, for that very purpoſe, *viz.* to receive into their Cavities the whole body of the eye: And theſe are by Oculiſts called *Orbitæ*, and are each of them compounded of ſix ſeveral bones, which, being moſt conveniently ſuturated among themſelves, do make up thoſe curious arched chambers in which theſe lookers or beholders dwell, in which, and from which, they may be aptly ſaid to perform their offices. And to theſe alluſion is had in the Plague wherewith the Lord will ſmite thoſe that fight againſt *Jeruſalem*, *Their fleſh ſhall conſume away while they ſtand upon their feet, and their eyes ſhall conſume away in their holes.* Zach. 14. 12.

Second-

Secondly, They may be said to look in, or through the holes; in respect of the *palpebræ* or Eye-lids; for although the use of the eye-lids is to cover or close the eyes, so that they are called, *Oculi ab oculendo, vel occultando,* because they lye hid under their lids; yet whensoever the eye is exercised in seeing, they must depart one from another, and so leave an open hole through which the sight may be made. And thus every man discerns in himself that he can take away sight, or cause it at pleasure, by drawing, or withdrawing; by letting down, or pulling up, these shutters of the windows. And it is wonderful to consider how ready they are in this work, that they might be no impediment to vision, so that an instantaneous action is no way better expressed, than by the motion of the eye lids: *Behold I shew you a mystery, we shall not all sleep, but we shall all be changed in a moment, in the twinckling of an eye.* And when we look earnestly upon any thing, we steadfastly keep the windows open; and a shut eye, in Scripture phrase, signifieth impossibility of seeing; *Shut their eyes lest they see*; and an open eye signifieth power of looking or beholding; *Open the eyes of these men,* saith *Elisha, that they may see, and the Lord opened their eyes,*

1 Cor. 15. 52.

Isa. 6. 10.

2 King. 6. 20.

and

and they ſaw, and behold they were in the midſt of Samaria. And a Seer, and a man whoſe eyes are opened, are the ſame thing, *Balaam the ſon of Beor hath ſaid, and the man whoſe eyes are open hath ſaid, he hath ſaid, who heard the words of God, who ſaw the viſion of the Almighty, falling into a trance, but having his eyes open*; And thus alſo may the eyes be ſaid to look through the holes, and all thoſe that have taken exact notice of the *Foramina Cutis* in the body of man, have been ſure not to neglect theſe. Num. 24. 3,4.

Thirdly, They may be ſaid to look through the holes, in reſpect of that outward Membrane of the eye, which is called *Adnata*, or *Conjunctiva*, and this is that which being divided from the *Pericranium*, is next of all to the *Orbita*, and firmly holdeth the eye in that Cavity, it encompaſſeth the eye round on the back part, and on the fore-part ſo far as the white of the eye goeth, and no further, and ſo leaveth the whole *Iris*, the rainbow, or party-coloured part of the eye, as an open hole, which the viſible ſpecies may freely without interruption paſs through; the truth of this any one may diſcern in the inflammation of the eyes, for that is a diſeaſe for the moſt part ſeated in this part alone;

alone; then you may see the veins and the Arteries very red and swollen, so far as this Membrane or the white of the eye reacheth, and the *Iris* or darker part of the eye in the mean while wholly free.

Fourthly, The eyes may be said to look through the holes in respect of the *Pupilla*, or the apple of the eye, which is nothing else, but an open hole in one of the coverings of the eye, as I may say, bored for that very purpose, that the lookers through the windows might have an open view; for that Covering which is called *Tunica Uvea*, is a thick, and a close, a dusky, and a dark Membrane, through which the visible Species, or the light cannot easily make its way. And therefore on the back part its use is to preserve, and to keep together the innate light of the eye, and also to give a stop to the visible species, so that they can pass no farther, but must there impress their Images; like the lead, or the steel, or whatsoever else is put on the backside of the Looking-glass, without which there can be no impression made; but on the fore-part it is most conveniently perforated, and at such a proportion, that the light or the species through it have freedom of access: which perforation is the apple of the eye, that wonderful part, which

which is so often noted in Scripture to be above all other parts of the body tendered and observed, and therefore here I would principally take notice of it; and of all the parts of the eyes, and of all the holes through which they look, let this be alwaies accounted the most observable. For it may be dilated or contracted as it may be conducible to a more perfect sight; if there be requisite thereunto, a greater or a lesser light; if the object we would look upon, be farther off, or nearer to the eye; or if we do more carelesly or curiously look upon it; this hole is presently made wider or narrower; that it may be the more serviceable for the present occasion. Gen. 32. 10. Psal. 17. 8 Pro. 7. 2.

Lastly, They may be said to look through the holes in respect of the *Optick Nerves*, for these above all the other Nerves of the body are apparently perforated; and although neither these, nor any other, doth so appear in a body that hath been long dead, yet doubtless they have open passages while the body is yet alive, forasmuch as they are the Conveyers of matter, though more pure and refined, from one part unto another, as the other Chanels of the body are. And here the Cavity and Porosity of the Optick nerves, ought as well to be reckoned among the

holes through which ſight is made, as any other that are placed before the proper Organ, upon which the repreſentation of outward objects is firſt made, and that becauſe there can be no perfect perception of any thing, unleſs the impreſſion made upon the Senſory be truly conveyed into the moſt inward receſſes of the brain, where the ſoul makes its ſeat of judicature. For as all the things in a Chamber may have their firm repreſentation in a glaſs that ſtands upon the Table, yet if any thing interpoſe between me and the glaſs, I diſcern nothing at all; and they are all as much hid from me, as if they had never been there repreſented. And thus we know a total obſtruction of the Optick Nerve, which is called, *Gutta Serena*, makes as perfect a blindneſs, as an obſtruction of the humour *Aqueus*, which is called, a *Cataract*; And thus I have endeavoured to ſhew, and that I hope with ſome ſatisfaction, how the eyes may be called, the lookers through the windows. Now as age comes on and encreaſeth, it is well known to all men how ſight goeth away and decreaſeth; the lookers out of the windows muſt aſſuredly be darkned, and by how much the more excellent theſe parts are, by ſo much the more apparent

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are their decayes. It is ſaid of the heart, it is *primum vivens*, and *ultimum moriens*; but contrariwiſe it may very well be ſaid of the eye, that it is *ultimum vivens*, and *primum moriens*. This moſt wonderful and tender part of man, in that it hath more curious and more various work in its formation, is the laſt that lives; and in that it hath need of more life and vigour, more firmneſs and purity in its operation, it is the firſt that dieth; and indeed the inſenſible encroach of age, is no where ſo ſoon diſcovered, as in the eye; and men are loath to think themſelves declining in age ſo ſoon as the eye gives warning thereof; and we have ſcarce any deſcription of an old man by his infirmities, wherein thoſe of the eye are not principally mentioned: When *Iſaac*, *Jacob*, *Eli*, and others are recorded as old, it is ſaid of them, *Their eyes were dim, and they could not ſee*; for whatſoever may either incraſſate the diaphanous bodies before mentioned, and render them leſs tranſparent; or ſtop the ſeveral perforations, and ſo hinder that open view: muſt of neceſſity cauſe a diminution, and in time a perfect abolition of the ſight; and here give me leave to name one or two principal ſymptomes of viſion that are the chief attendants of this declin-

Gen. 27. 1 Gen. 48. 10. 1 Sam. 3. 2.

ing ſtate; The firſt is *Caligo*, which is the obſcurity of viſion by reaſon of the Craſſitude or thickneſs of the *Tunica Cornea*; which by reaſon of the drineſs of age doth together with the nails of the fingers, grow darker and thicker, and conſequently loſe dayly ſomewhat of its perſpicuity: Another is *Glaucoma*, which is the change of the colour of the Cryſtalline humour, by reaſon of its dulneſs and thickneſs, whereby old men do look upon all things as it were through ſmoak, or a cloud, and ſo do but darkly diſcern them: Another is *Zizifiſis*, which is a change of the figure of the whole eye, whereby it becomes more plain and depreſſed, and a drineſs in the Cryſtalline humour, whereby it is unable to reduce the eye to that form, which may be moſt advantagious to viſion; ſo that they cannot perceive any thing at an equal diſtance, but muſt have their objects more remote from the eye, or the ſpecies firſt refracted and directed by the uſe of Spectacles. Another is *Suffuſio ex cruditate*, or any interpoſition of any preternatural matter between the ſight and the *Tunica Cornea*: I might alſo add *Corrugatio & relaxatio uveæ tunica*, the contraction or dilatation of the apple of the eye; or whatſoever elſe by obſcuring the glaſs,

Fernel.

or obſtructing the holes; may be juſtly ſaid to darken the lookers out of the windows.

Verſe 4.

And the doors ſhall be ſhut in the ſtreets; when the ſound of the grinding is low, and he ſhall riſe up at the voice of the bird, and all the Daughters of muſick ſhall be brought low.

THus far the Preacher hath been treating of all thoſe faculties which are termed *Animal*, and their decaies in the time of age; he paſſeth in this verſe to thoſe other which are called *natural*, of which he treateth in the beginning of this verſe, and then to thoſe that are mixed, in the latter end; and that in a double reſpect, firſt, thoſe that are mixed of the faculties, inward and outward, and that is expreſſed in the want of ſleep, in thoſe words, *He ſhall riſe up at the voice of the bird*; foraſmuch as ſleep, if perfect and ſound, is the ligation of all the ſenſes both inward and outward for the refreſhment both of the mind and body. The other mixture of faculties is of vital and Animal, in the laſt words,

Fernel l. 6 Pathol. c. 11.

All the daughters of muſick ſhall be brought low; For the paſſive daughters of Muſick belong to the Animal faculty, being the Inſtruments of an outward ſenſe, *viz.* hearing: And the active daughters of Muſick belong to the vital, being the inſtruments of reſpiration, as you ſhall hear hereafter. Now to the underſtanding of this verſe, eſpecially the former part of it, I hope to let in ſome glimmering of light, which formerly hath lain undiſcovered.

The doors ſhall be ſhut in the ſtreets, when the ſound of the grinding is low.

For the right underſtanding of theſe words, we muſt be ſure in the firſt place to take notice that all theſe words are but one Sentence, and conſequently but one Clauſe of the deſcription of age; the former words, *viz. The doors ſhall be ſhut in the ſtreets*, are not a diſtinct ſymptome of themſelves, as moſt men have formerly ſaid, but they have their reference to the enſuing words, *viz. When the voice of the grinding is low.* And the doors and ſtreets here mentioned, are no other, than ſuch as concern the grinding, and are as inlets and outlets, waies and paſſages unto that. And I perſwade my ſelf, that the hitherto miſcarriage in the Interpretation of theſe words

words hath proceeded from neglect of this consideration. The doors shall be shut when the grinding is low, and only then; and the lowness of the grinding, is the cause of the shutting of the doors. *In humilitate vocis molentis*, saith the Vulgar Latine. *Ob, per, vel propter depressionem vocis molentis*, say others, and that very consonant to the Original, inasmuch as the grinding shall be low, or by reason of the lowness of the grinding, the doors shall be shut in the streets. Wherefore for the better clearing of the whole Sentence, we must first of all shew what is to be understood by the *grinding*, and afterwards what the doors and the streets are, and what the sound of the grinding, will easily be made appear. The wisdome of *Solomon* is so famous throughout all Regions and Ages, that I need not here Apologize for it. It would be unbecoming an ordinary Writer, much more the Penman of this Allegory, to deliver the same thing twice in a breath; And I wonder with what face any Interpreters could put so great an absurdity upon the Wise man, as to make this grinding signifie no more than that just mentioned before. But for the clearing of this, we must know that grinding is of two sorts, either *Per extra positionem*,

tionem, or *Per intra ſuſceptionem*, (as Philoſophers uſe to diſtinguiſh of augmentation,) there is an *extrinſecal*, or an *intrinſecal* grinding; the former of theſe is performed when two hard bodies acting againſt each other, do break and bruiſe into ſmall parts, that which is put between them. And this is the grinding as in a Mill, of which you heard before. The latter of theſe is performed, when the parts of the ſame maſs, by reaſon of the exaltation of ſome internal principle, or the addition of ſome *fermentum*, are ſo acted among themſelves, that the whole maſs, and every the leaſt part thereof, is changed and brought into a new Conſiſtence. And this Philoſophy calls *Fermentation*, and is that of which the Wiſeman ſpeaks in this place; And it is therefore called grinding, becauſe it accompliſheth the end thereof better than any mill can do. It will comminuate things of ſo hard a ſubſtance that no mill can break. I would fain know what Mill could have ground *Aarons* golden Calf, but by the help of fire, and poſſibly ſome ſpecifick menſtruum, as a proper key for that Solar Mineral, it was eaſily ground to powder. Again, it can divide the matter that is to be ground into ſmaller parts than any mill

Exod. 32. 20. Deut. 9. 21.

can

can do; it will not leave the moſt minute part unſearched, *A little leaven*, ſaith the Scripture, *leaveneth the whole lump*. And our Saviours expreſſion of it, is yet more ſignificant, *The Kingdom of heaven is like unto leaven, which a woman took and hid in three meaſures of meal till the whole was leavened*, ἕως οὗ ἐζυμώθη ὅλον, till the whole of maſs, and every one of the leaſt parts thereof be leavened. No Mill can be ſet ſo low, as to grind every Corn, and every part of every Corn; but Leaven leaves none untouched, but divides (beyond what Philoſophy gives way for) into parts indiviſible. 1 Cor. 5. 6. Gal. 5. 9. Mat. 13. 33.

Now of this ſort of grinding there is very much to be found in the body of man: And indeed all the natural alterations that tend either to the preſervation of the perſon, or propagation of the kind, are the products of this inteſtine grinding. And there is ſcarce a part in man, eſpecially an internal *viſcus*, that doth not particularly contribute to ſuch a work as this. And ſurely, that which lies daily upon our trenchers, had need of many through grindings, that it may be really tranſubſtantiated into our fleſh; theſe in the body of man are by Phyſicians called digeſtions, or concoctions, and are to be found almoſt in every part,

part, as was ſaid before; but I ſhall inſtance only in a few, and thoſe well known to all thoſe that have the leaſt skill in natural things; and theſe few grindings, together with the voice of them, the doors and ſtreets that lead to, and from them being well underſtood; thoſe that are more accurate in the knowledge of all the alterations of the nouriſhment of man, may thence from eaſily attain the whole intent and purpoſe of the Wiſe man in this part of the deſcription of age. I ſhall only mention five: Three in reſpect of the Individual; and two in reſpect of the Species; and they are thoſe common ones; *Chylification*, *Sanguification*, *Aſſimulation*, *Lactification*, and *Spermification*.

The firſt of theſe, *viz. Chylification* is thus performed, after the meat is ſufficiently chewed in the mouth, it is committed to the ſtomack, where continually there lyeth treaſured up a certain acide juyce, the relicts of the laſt Concoction; which (as the Leaven in the bread) doth preſently infect the whole maſs, and every part thereof; and doth ſo penetrate and ſearch the parts, and ſo divide and ſeparate them one from another, and joyn it ſelf to every one of them, that at laſt the matter of nouriſhment is ſo perfectly ground, that it is brought

brought to a new Consistence and colour, very like to the Cream of Barly, and is that Physicians call the *Chyle*; and this is the first intrinsecal grinding that the food receiveth, and is next of all to that of the mouth, and not altogether unlike to it; and therefore when mastication is but weakly performed, you heard before that it was helped by infusion of the food in a Ventricle prepared for that purpose, whereby the parts were acted among themselves, and better comminuated, than if they had been never so long chewed in the mouth.

The second of these, *viz. Sanguification* is performed, when the *Chyle* it self is ground over again, and receiving yet farther exaltations by a greater solution of the more noble, and active principles; it once again deposites its old colour, and consistence, and so at length becomes perfectly changed into that true liquor of life, which is called *blood*; and although it must alwaies be acknowledged that the *Chyle* doth receive many alterations, and exaltations before it come to the heart; almost in every part it passeth through, both in the guts themselves, in the Mesentery, the Glandules, and the milky vessels, both of one sort, and of another; Lev. 17. 11, 14.

another; and also in the veins; and after it hath passed through the heart, it must be once or twice circulated through the body, and receive several defæcations, as in the Liver, the Spleen, the Kidneys, and the like; before it be compleatly accomplished for its ultimate use, all which exaltations, and defæcations, are included in this Text; yet it must still be remembred, that the principal and supream exaltation of the bloud, the most eminent and remarkable grinding towards Sanguification, in comparison of which, all the others are little to be accounted of; is alwaies performed in the *heart*, that fountain of life; for as soon as the *Vena Cava* hath committed the matter of nourishment into the right Ventricle of the heart, the *fermentum* therein contained working suddenly and throughly upon it, sets the active principles at a greater freedom, and so inducing new motion, and effervescence into the bloud, doth happily impregnate it with vitality. And not only this new matter of nutrition, when it first attingeth, the heart is thereby enlivened; but the best bloud it self, after that by various circulations, and imparting its power and life to the parts that are nourished by it, it becomes weak and much depauperated; is

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gain to return back again to the heart for a fresh imprægnation. And such a vast difference there is between the bloud in the Arteries newly brisked in the fountain, and that in the Veins lowered and impoverished with its journey, that the Ancients took them for two several things, and knew not that they were the same; like the men of *Bethlehem*, who knew not *Naomi*, nor would acknowledge her the same person, because she went out full, and returned home again empty; and she her self was not unwilling to have changed her name! And he that shall call the rich bloud going out in the Arteries, *Aerial*, *Jovial*, *Spiritual*; and the mean and poor bloud returning home in the Veins, *Earthly*, *Saturnal*, *Gross*, shall make no Schisme at all in the unquestionable doctrine of Circulation. Ruth 1. 19,20,21

The third of these, *viz.* *Assimulation*, is then performed, when the nutritive juyce is sufficiently prepared in all things that are allotted to it, and by the impulse of the conveying vessels is brought near to the parts that are to be nourished, and then every one of the parts by a certain allective property of its own, doth draw that which is most agreeable to it self, and then falls to acting, searching, breaking it over

again

again into most minute parts, and so those that are like to prove unconformable, are excommunicated to the pores; and the other are taken into joynt fellowship and communion, and so made one with the part; and that which is most remarkable is, that *according to the time of life*, where-
Gen. 18. 10. in augmentation or encrease of stature is appointed to man, every one of the parts takes so much to it self, as will answer its dayly growth, and after that is accomplished, every part takes only so much to it
Exod. 16. 17, 18. self, as doth answer its dayly decay. *The Children of Israel gathered Manna in the wilderness, some more, some less, yet when they did mete it in an Omer, he that gathered much had nothing over; and he that gathered little, had no lack, they gathered every man according to his eating:* This is truly verified in the food of all mankind. Some there be that make greater preparations for the belly, othersome there be that make lesser, yet when this comes to the measure of God, I mean, to be put to that end which he hath appointed, he that made the greatest hath nothing over, and he that made the least hath no lack, every one according to his wasting. The Princes superfluities, and the Beggars penury, both of them make but equal reparation

on for the dayly Consumption of their own flesh.

The fourth that I mentioned, was the *making of the milk*; which although it be peculiar to one Sex only, yet I cannot but take notice of it among the rest, because a principal alteration of the nutritive juyce is thereby made, and the wisdom and goodness of God is therein (as in the formation and birth of the Infant) most eminently made appear. *Thou art he* (saith *David*) *that took me out of the womb, thou didst make me hope when I was upon my mothers breasts.* Now, this is thus performed: The Breasts by their attractive property, draw from the Arteries that bloud, which is the least altered from Chyle, as being most agreeable to their glandulous substance; and from the Nerves, that juyce which they convey for the nourishment of the spermatick parts, and by a specifick *Fermentum* in themselves contained, do subact, and comminuate, both these liquors, and by a perfect mixture of them, and a certain peculiar alteration, at length produce that white, sweet, pleasant, alimentory liquor which we call the *milk*, which containeth in it meet matter of nourishment for all the parts of the Child, both *sanguineous*, and *spermatical*: and Psal. 22. 9

is

is the most proper food for it, and exactly agreeable to that, with which it was sustained in the womb.

The last of these we have named is, the *production of seed*, which because it is the highest, and most wonderful of them all, it had need of greater preparations, and more alterations than all the rest; and therefore it is, that there are several vessels appointed for that purpose, and many admirable Combinations, Complications, and intertextures of them all, which are not elsewhere in the body to be found. The *Vasa præparantia*, and *Deferentia*, the *Vas Varicosum*, the *Epididymis*, and *Parastatæ*, the *Vesiculæ seminales* also, and the *Prostatæ*, do each of them add somewhat to the making of the Seed meet for propagation; but it must alwaies be acknowledged, that the principal *Fermentum* that doth most of all exalt the seminary matter, and chiefly render it prolifick, is contained in the soft, spungy, glandulous substance of the *Testes*; which therefore bear their name, because they give testimony of virility, and shew that a man is perfect in his kind, and therefore able to produce his own Image; the spiritous & benign matter most apt for generation, being from all the parts of the body by the Arteries and Nerves conveyed

Gen 5.3.

conveyed to these parts; it is herein by a mysterious faculty of their own, elaborated into that noble *Elixir*; which from one man hath dilated the world to so many millions as of which it now consists; and doth continually from generation to generation make abundant reparation for the cruelties of the King of terrours. For although in the space of an hundred years or thereabout, all the living upon the face of the earth are driven thencefrom by the stroak of death, yet by the vertue of this divine extract, the earth is at all times sufficiently peopled, and the Inhabitants thereof perceive no lack. So that this doth in a manner perpetuate mortality, and cause men to survive the funerals of all mankind. Hence it is that the wisdom of God in Scripture doth alwaies express Posterity, and the Generations that were yet to come, by the word *Seed, I will put enmity between thee and the woman, between thy seed and her seed.* Gen. 3. 15 And the Lord said to *Abraham, Look now towards heaven, and tell the Stars if thou be able to number them, so shall thy seed be.* Gen. 15. 5

And this is the last operation in man which I shall mention that is here intended by the word grinding; and this, *viz.* the preparation of seed (if not all the other)

is eminently called grinding, in that place where it is said, *Let my wife also grind to another, and let others bow down upon her*; and all the other alterations of the nutritive juyce in man (if not this also) are eminently so called, in the Story of *Samson*; for although it be generally understood that *Samson* ground in a Mill, and our later Commentators, (as if in a Mill themselves) following the beaten tract, do all take it up from others, and leave it unto others as granted: yet in the Text there is not once mention made of a Mill, but there are many Circumstances that do to me clearly evince the contrary; the words run thus, *The Philistines took him, and put out his eyes, and brought him down to Gaza, and bound him with fetters of brass, and he did grind in the prison house*: Wherein it is very observable, that it is not said, they made him grind, or they forced him to grind, but he did grind in the prison house: And it is so much the more observable, because all the injuries done to him before named, are expressed by a force put upon him; they took him, they put out his eyes, they brought him down to *Gaza*, they bound him with fetters, and if this last, had been a like injury and force unto him, it had been more congruous to have

Job 31. 10.

Judg. 16. 21.

continued

continued the same manner of expression, and to have said, *They made him grind*; but the violence is here left out, and his grinding made his own doing, *He did grind in the prison house.* Beside those Manicles put upon him were exceedingly inconvenient for a grinder in a Mill. And it is most improbable, that for that small advantage or pleasure that should accrue to them by his grinding in a Mill, that they should at any time take off his fetters, since they had had so many, and so sad experiences of his unparallel strength. And if at any time they should loose him, then sure was the least danger, when the Lords of the Philistines, and three thousand of the people were gathered together to see him make sport; yet at that time he was kept (by his chains doubtless) at the disposure of a Lad; *For* Ver. 26. *Samson said to the Lad that held him by the hand, suffer me that I may feel the pillars wherein the house standeth, that I may lean upon them.* Moreover, the ancient Rabbies give us an interpretation upon this place, which is not altogether improbable, and which is confirmed unto us by *Hieron* in his Commentary upon the second verse of the forty seventh Chapter of *Isaiah*, and that is, that this people being very desirous of Giants, and boasting much in their

ſtrength (as is well known by ſacred Story) brought of their choiceſt, and luſtieſt women to him in the Priſon, that from this mighty Deſtroyer of their Country, they might have a Gigantick Race for its preſervation: However in the main, I perſwade my ſelf, his grinding was nothing elſe, but performing the offices of nature, his eating, and drinking, and being nouriſhed there; his turning his food into chyle, his chyle into bloud, his bloud into fleſh, and other the like natural operations, which is the true meaning of the word grinding in this place.

We now proceed to *the ſound of the grinding*, which is nothing elſe but that, by which the grinding is known, ſome natural ſymptome ſignificative of digeſtion; and all thoſe indications that do demonſtrate that the works of nature proceed aright, and according to their primitive inſtitution (whether it be the appetite of the parts, their action or excretion of their excrements, thoſe ſubſervient faculties which uſually are called *Attraction*, *Retention*, *Expulſion*, or whatſoever elſe may manifeſt Concoction) may truly and properly be called the voice of the grinding. I ſhall inſtance in a few, whereby the reſt may be eaſily diſcerned, and therein I ſhall obſerve

observe my former method having reference only to those five great works of nature before treated of. The voice of the first grinding, is the natural appetite of the stomack to meat and drink, and is usually called hunger and thirst; the strength and power of the stomack to retain its food; and the seasonable evacuation of well concocted excrements. The voice of the second, is a free passage of the chyle without obstruction, a quick, strong, and a lively pulse; a due separation of gall, of urine, and the rest of the excrements of this Concoction. The voice of the third, is the proper tone of all the parts of the body, the fastness and fulness of the flesh, and convenient perspiration. The voice of the fourth, is the Custome of women, Gen. 31. 3
the stiffness, lively colour, and freshness of the nipples, the smoothness, fairness, elevation, and towring of the breasts, as it is called in Scripture, *Her breasts are as towers.* Cant. 8. 10. The voice of the last, is appetite, aptness, and ability for Copulation; Inflation, and Turgescency of the Seminary vessels both *preparatory*, and *ejaculatory*; commonly called, *Fratration*; a right temperament of the parts appointed for propagation, strength, vigour, and liveliness of the whole body beside: These, and the

like excellencies of nature are the voice of the several grindings while they remain in power; but as age enfeebleth a man the grindings are weaker, and the several voices of them more submiss; wherefore it doth necessarily follow, that in decrepit age, all the beforementioned indicatours of strength and perfect Concoction must be depraved, diminished, or abolished; which is the lowness of the sound of the grinding, and doth include the weakness of the natural faculties in man which stand in direct opposition to those excellent voices before treated of, and such are these that follow: *Dejectus appetitus, imbecillitas stomachi, faces alvi indebitæ: obstructiones omnes, pulsus debilis, rarus, tardus; mala sanguinis defæcatio quoad seram, bilem, &c. vitium partium vitiatus, Cutis ariditas, indebita perspiratio: Cessatio mensium, papillarum pendentia & lividitas, mammarum flaccidita & rugositas: impotentia & inappetentia Concubitus, vasorum spermaticorum imbecillitas & rigor, testium & partium propagationi dicatarum Cachexia & refrigeratio, totius corporis languor & marcescentia.* These are the decaies of man intended in this part of the Allegory.

Rom. 4. 19.

Now the grinding and the voice thereof being thus far explained, I question not

but

but the *doors* and *ſtreets*, that relate thereunto, are by this time underſtood; but becauſe the word *doors* hath ſome peculiarity in it, I cannot but take more notice of it: דלתים this word being of the duall number, ſignifieth properly the two doors, or both the doors, or the double doors. And although I know no authority for the tranſlating of it into Latine, otherwiſe than *fores*, or *oſtia*; yet I ſubmit it to the Learned to conſider, whether the word *Valvæ* or *Valvulæ* will not as well, if not better, agree to the Text; the folding doors, or the doors that clap together, or that have a double uſe. For the better underſtanding it, therefore we muſt know that the doors that relate to the grinding before ſpoken of, are of two ſorts, either the *extream doors*, or the *intermediate doors*. Again, the extream doors alſo, are of two ſorts; either the *fore doors*, or the *back doors*; either the doors that firſt let in the matter of nouriſhment for the body, that it may therein be ground for its uſe; or the doors that laſt let out the relicts of the grindings, or that matter that upon the ſeveral grindings becomes altogether uſeleſs. The fore doors, or the doors by which the food is firſt let into the body, are none other than the Lips, for by the

ſhutting of them, the meat is kept out, and by the opening of them, it is let in, to the firſt grinding in the mouth. And as they are called doors in reſpect of words,

Pſal.41.3 foraſmuch as they let them out; *Keep the door of my lips*, ſaith *David*. And again,

Mic 7.5. *Keep the doors of thy mouth from her that lieth in thy boſome*. So they may as aptly be called doors in reſpect of the meat; for they let that in.

And hence it is, that the Orbicular Muſcles, which make the ſubſtance of the

Hoſ.14.2 lips, (being therefore called the *Calves of the Lips*,) and have the power of the keys to ſhut and open them, are called *Oris Pylori*, the explication of which word (as being very conducible to what we are now about) you have hereafter. And therefore thoſe former Interpreters that have applied theſe words to the Lips, have done exceeding well; the report they have given hath been true; yet I may, with the

1 King.10 6,7. Queen of *Sheba*, farther add, *Behold the half hath not been told us, the wiſdom of Solomon exceeding the fame which we have heard*. For beſide theſe fore doors, there are other extream doors alſo, *viz.* the back doors, which ſerve only for the carrying out of the Excrements. And although the Ears, the Noſtrils, and the

Eyes,

Eyes, and all the *Emunctories* of the body may be here included, yet those which are principally intended, are those eminent Posterns, which so long as man lives in strength are alwaies ready for their work, which is to give pass to those three several Excrements which we dayly avoid, either by the guts, the bladder, or the habit of the body; and therefore these doors are, *Sphincteres ani, & vesicæ, & pori Cutis*: For all these have a power of opening and shutting, and consequently of keeping in, or letting out, whatsoever comes unto them, and are often at convenient seasons retracted for the cleansing of the body. Thus far of the extream doors, which are placed at the extremity of the body, and serve only for inlets or outlets to the surface of the body, for all that which is either desired or rejected of nature. The intermediate doors are seated within the body, and are inlets and outlets only from one part of the body to another; like the doors within the house, which according to their shutting or opening are stops or passages from one Room of the house to another. These may be said to be double doors, because they relate to two parts, to that which is before, and to that which is behind; they let out of that, and into this;

this; and of this sort there are very many in the body of man, and some, I perswade my self, that are not yet sufficiently discovered. The first that the matter of nourishment meets with after it is chewed in the mouth, is the *Pharynx*, or head of the *œsophagus*, which while it be kept close, keeps the meat in the mouth, till it be there sufficiently ground, and afterward by the retraction of the Muscle of the throat, which for this very reason is called *Sphincter gulæ*, it is committed into the throat, which is the high way to the stomack; but before it can come there, it meets again with another door, which is called, the mouth, or *superior Orifice of the stomack*, which unless it be opened also it cannot pass. And this any man may perceive in himself in a morning, or after the mouth of the stomack hath been long and close shut, if he hastily swallow down solid food before he drink, it makes a stop there, and stands knocking as it were, with pain waiting for admittance. The third door that the chyle meets withal, is the passage out of the stomack into the guts, and this is the *inferiour Orifice of the stomack*; which is so wonderfully framed, that it gives easie admittance for the chyle from the stomack to the guts, but back

again

again from them to this, very difficult, or none at all; and it hath a power of dilating or contracting it self, making way, or stopping it, according as the necessity of Nature requireth; from whence it is by Anatomists called *Pylorus*, which is a Greek word, as most of the Anatomical terms are, and is derived from πύλη *porta*, and οὖρα *curam gero*: and is as much as *Janitor*, the Porter or door-keeper; and it doth faithfully, according to the dictates of nature, shut or open that passage unto which it appertains. Besides these three, there are many others which I shall only generally name; The *Capillaries* of all the containing vessels in the body, the several stops of all the Veins and Arteries, which are called *valvulæ*, especially those eminent ones about the heart, of which more hereafter, the porosity of all the inward parts of the body, the *Valvula Coli*, the *Annulus Fibrosus* of the bladder of gall, the several heads of the *Ureters*, their wonderful insertion into the bladder, these, and whatsoever else in the body of man can by their constriction stop that which comes unto them, and by their dilatation give it convenient passage, are in this place called, the *doors of the streets*.

The streets are those open waies and passages

passages in the body of man, which the matter of nourishment passeth along without let or molestation. *Thou shalt make thy self streets in Damascus*, saith *Benhadad* to *Ahab*; that is, thou shalt pass through *Damascus* at thy pleasure, without interruption; there shall alwaies be a broad and an open way. *Platea dicitur à* πλατύς, *latus*; and in this place is, as much as, *Latitudo foranea patens & aperta.* And of such there are divers found in our body; The *œsophagus*, or Gullet, the six several intestines or guts, as usually they are divided by Anatomists; the milky vessels of one sort and of another; all the Veins and Arteries; the Nerves and Lymphæducts; the *ductus Cholidochi, Pancreaticus, Salivalis*; the *Vasa præparantia & deferentia, tubuli lactiferi*; the *Ureters* and the *Uretra*, in a word, all the *Communes ductus*, or open passages which are by nature appointed for the conveyance either of the Aliment or Excrements, are the streets here intended; forasmuch as they have reference to the grinding before mentioned, and are the common roads or high waies to, and from, the places where the grinding is performed.

1 King. 2. 34.

What remains now, but only that I briefly name unto you those symptomes of age

age which are ſignified unto us by this clauſe, *The doors ſhall be ſhut in the ſtreets.* What the doors are you have abundantly heard, the ſhutting of them is nothing elſe but their ceaſing from their uſe, or their not being exerciſed to that end unto which by nature they are appointed; when by reaſon of the extremity of age the voice of the grindings is very low, then ſhall the doors, all the doors, both the doors, the doors of both kinds, the double doors, ſhall be ſhut in the ſtreets; they ſhall all have loſt their opening faculty, ſo that they ſhall neither let in, nor let paſs, nor let out, what they ought to do, as they formerly did, ſo long as the ſtrength of man remained, and the voice of the grinding was high. *Occluſio labiorum contra cibum, obſeratio pharyngis, atriuſque orificii ventriculi; deglutiendi difficultas, impotentia reſerandi in omnibus, arteriarum & venarum, imo omnium internarum partium oſtiis, & valvulis; poterum conſtrictio; dyſuria, ſtrangvria, iſcuria; alvi adſtrictio, ſeu potius pigra tardaque depoſitio.* Theſe and the like ſymptomes that ariſe from the inability of thoſe parts that have in themſelves a power of opening and ſhutting for the benefit of the body, are hereby indicated unto us. And thus far of the

natural

natural faculty of man, both in reference to the preservation of the Individual, and the propagation of the Species; from which short observations they that are better skilled in the hidden mystery of the frame of mans body, and know all the wonderful alterations that are therin made, may easily attain the knowledge of the full scope and intention of the Wise man in this place.

He shall rise up at the voice of the bird.

This expression being in it self easier than the rest, and having been well understood by most that have considered this Allegory, I shall not much insist upon it, I shall only tell you, that it is to be understood of those infirmities of age, whereby men are altogether unable to take that content and quietness, that sleep and nocturnal repose, which formerly they had used to be refreshed with; there are that earnestly contend to have the latter part translated, *Ad vocem passeris*; others would have it, *Ad gallicantum*; others are content with, *Ad vocem volucris*. For my own part I think it not worth the dispute what this bird is in particular: The generall word pleaseth me best, and the Original word, *Omnem significat avem mane surgentem ad garriendum*; For the Radix is

is צפר and hath two eminent significations, one is, *Alas habere sive evolare*; and the other, *Maturare sive mane surgere*; and that which else where is translated the early morning, is from the same root with this word in the Text, so that if we say, the early bird, or the bird that is warbling its accustomed note betime in the morning (without descending to particulars) we shall take in the whole latitude of the signification of the word, and the full scope of this part of the description of age; which is nothing else but to shew how restless, and wakeful men are in their old age, so that that which is said of the abundance of the rich man, may as truly be said of the infirmity of the old man, *it will not suffer him to sleep*. In the night time possibly he may have some unquiet drowsings, but when the morning approacheth, that time wherein man in his perfect state taketh the greatest refreshment, and the soundest sleep; then shall he be broad awake, and rising up; *He shall rise up at the voice of the bird*; that is, at that time when they utter their voices; not (as some have interpreted it,) *Causâ vocis avicula*, by reason of the voice of any bird, as the crowing of the Cock, or the like, as if the voices of them, should wake them from their

Ezek. 7. 10.

Eccl. 5. 12

their ſleep; for it is not ſaid, he ſhall *wake* at the voice of the bird, but he ſhall *riſe* at the voice of the bird, preſuppoſing his being awake long before, it may be all the night: Beſide the enſuing words, as you ſhall immediately hear, do demonſtrate the deafneſs of old men, and therefore it is not to be thought that they ſhould eaſily be ſtartled, as it were, and awaked at the voice of any bird; therefore it muſt of neceſſity be underſtood, as it is elſewhere
Cant. 2. phraſed, *At the time when the ſinging of the birds is come.* Now the time of the ſinging of the birds may be ſaid to come, *Annually*, or *Diurnally*. The *yearly* coming of the ſinging of the birds is in the ſpring of the year; to which alluſion is had in that place of *Solomons* Song: And the *daily* coming of the ſinging of the birds is in the ſpring of the day, or very early in the morning; by which time the decrepit old man is very weary of his bed, having in it neither eaſe, nor ſleep. The ſinging of the birds, and the ſighing of old men, are early Coutemporaries: Theſe are as ſoon weary of their lodgings, through the pains and wakefulneſs, that hath attended them in the night ſeaſon; as they are lifting up their pleaſant notes, after their refreſhment. Anxiety and trouble of mind, was

ſo

ſo grievous to *Ahaſuerus*, that it is ſaid, Heſt. 6. 1.
On that night could not the King ſleep: Upon the ſame occaſion it is ſaid concerning *Darius*, *His ſleep went from him*: Pains Dan. 6. 18.
and diſeaſes of the body, were ſo troubleſome to *Job*, that he complains, *When* Job 7. 4.
I lye down I ſay when ſhall I ariſe, and the night be gone, and I am full of toſſings too and fro, untill the dawning of the day: both theſe joyned together in age, together with that which is worſe, namely, the natural dryneſs of the brain, and a Conſumption of thoſe benign vapours that overcome it in ſleep; muſt needs produce the like, or more uncomfortable effects. So that the ſymptomes hereby indicated unto us are, *Anxietates animi, inquietudines nocturnæ, & dolores Corporis*; and principally the product of them both, which is *Vigiliæ*.

I ſhould thus paſs hence-from, were there not a grand objection lying hid in the body of this diſcourſe, which upon this occaſion doth more apparently diſcover its face. It may be here ſaid, are there not ſome Contrarieties in this deſcription of age, or at leaſt in this Interpretation of it? Are there not ſome inconſiſtent ſymptomes reckoned up, to make this miſerable ſtate yet far worſe than it is? Was

not *Carus* and *Apoplexia* diseases of over-much sleep, in the Exposition of the second verse numbred among the Symptomes of age: How therefore comes it to pass that *Vigiliæ*, or over-much wakefulness can be an attendant upon the same condition?

To this I must answer, Were this our fault, it were not ours alone; for so clear is the Case, and the truth of it by dayly experience so apparent, that whosoever hath at any time treated of the diseases of age hath constantly enumerated them both, as being not the least inconsistent one with another; and that is, because they are not of the same kind; *Necesse est ut opposita sint sub eodem genere.* Now sleep, and the abstinence from it, may each of them be considered either *in genere naturali*, or *in genere præternaturali*; there is a natural, there is a diseased or preternatural sleep. And between these there is a vast difference. *Natural sleep*, is a woing of the body and mind to quietness, whereby the benign vapours, by their amicable embraces of the brain, get power of it, for its refreshment: *Preternatural sleep*, is a committing a rape upon the body and mind, whereby the offensive superfluities, by their violent assaults, force the brain to a benummed-

Hippo.l.3. Apho.ult. Galen l.3 c.6.de sanitate tuenda. Rauchin. de morborum senum diis.

benummedneſs for its deſtruction; the ſame Diametrical difference there is between natural and preternatural wakefulneſs. *Natural waking*, is when the brain, by its own vigour and ſtrength, doth, *Samſon*-like, ariſe and ſhake it ſelf; Caſting off all thoſe exhalations which, having ſpent their vertue for the refreſhment of the body, are become altogether uſeleſs; ſo that hence-from all the ſpirits of a man are enlivened, *As a bridegroom coming out of his Chamber, and rejoycing as a ſtrong man to run a race*; but when the race is run, and the ſpirits are thereby tired, there is need of a recruit by ſleep. So then, when there is in the nature of man a paucity of thoſe pleaſant vapours, and an ineptitude in the brain to receive thoſe few that are, there muſt needs follow natural watching or wakefulneſs. *Preternatural waking* and watching, on the contrary, are, when there is an external force put upon the brain, either to raiſe it from ſleep, or to keep it ſo. Now, to apply this diſtinction, we muſt know that ſleep and the want thereof are directly contrary one to another, ſuppoſed alwaies they be in the ſame kind. Preternatural ſleep, and preternatural watching are altogether inconſiſtent, and therefore an *Apoplex* and a

Judg. 16. 20.

Pſal. 19. 5

Frenzy, are in no wise incident to the same person at the same time: So also natural sleep and natural watching are inconsistent one with another, and not competible to the same age; but are to be found in man at as great a distance as his life will give way for; *Senibus naturale est vigilare, pueris dormire*; but when they are one of one kind, and another of another, namely, preternatural sleep, and natural watching, they may both of them without any incongruity at all, be reckoned up as the Symptomes of old age.

I make the more of this distinction, (though very common and ordinary,) and so I would have others do too, because of its universal use upon this occasion; for not only here, but in most of the other descriptions of age, it hath its place for the decision of Controversies; in the very last description, *Pigra & tarda alvi depositio* was numbred as a symptome of age, because the *Sphincter ani* is hardly and seldome retracted for the natural evacuation of the Excrements of that kind; yet *alvi humiditates* are reckoned as an attendant on the same state, because without any opening of the door, there is a preternatural flux that way. So also in their Urine, there is a continual stopping, and

Hippo. l. 3. Aphor. ult.

yet

yet withall a continual dropping. The Teeth are relaxed by reaſon of drineſs, and yet moyſture expels them their ſockets. Siccity of the Eyes is their chiefeſt diſeaſe, and yet they run with a continual Rheume; Hardneſs and drineſs alſo is the temper of the brain, and yet it is alwaies diſtilling *Coryza's* and *Catarrhes*. In a word, this diſtinction will be found of moſt general uſe, foraſmuch as there is ſuch an intricate mixture of naturality and preternaturality in age, ſo that that plain and eaſie deſcription which is uſually given of it, ſeems to me ingenious and moſt ſignificant. *Senectus eſt morbus naturalis.*

All the Daughters of Muſick ſhall be brought low.

The Organs that have reference to Muſick in the body of man (beſide which I would by no means ſeek an Interpretation) are of two ſorts. They are either ſuch as make muſick themſelves, or ſuch as take and receive the Muſick that is by others made; the firſt of theſe I call, *the Active Daughters of Muſick*, foraſmuch as they are themſelves muſical, and every one of them bear their part in making of it; the other I call, *the paſsive daughters of Muſick*, foraſmuch as they only receive it, taking

delight in that, of which they have not the leaſt ſhare in making.

The *Chaldee* Paraphraſe hath reference to the firſt of theſe, when it ſaith, *Remittentur labia tua à dicendo Cantico.* The Lips, and whatſoever other parts in man, are any way inſtrumental unto ſinging, may be very well ſignified unto us by the *Cantatrices mulieres*, or female Choriſters in the Text; and theſe are very many in our bodies. For beſide thoſe remote helpers, the *Thorax*, the *Diaphragma*, the *Muſcles*, the *Nerves*, the *Glandules*, &c. There are three ſeveral kinds of Organs, that do more immediately, and yet diſtinctly and gradually conduce to the production of vocall Muſick. The firſt, are thoſe that prepare and adminiſter the matter for a ſound; The ſecond, are thoſe that form that ſound into a voice; The third, are thoſe that modulate that voice unto Muſick.

The firſt of theſe, are none other than the *Lungs*, which are the proper inſtruments of our breathing; which how excellent it is in it ſelf, and how neceſſary to our being, the Scriptures of God do demonſtrate without compare. The life of man in this world, runs parallel with his breath; *All the while my breath is in me,*

Gen 2.7. Job 12. 10. Pſal. 104. 29.

and

and the Spirit of God is in my nostrils; and the death of man is still signified by the departure of his breath; It is said of the widows child, *He had no more breath left in him.* Plainly throughout the whole Word of God, breath, and life, and soul, and spirit, are synonomous, and often made exegetical one of another. Among other excellencies of breathing, that whereby it is made instrumental to speech and harmony is not the least; in all wind Musick, there must be first a gathering of the air into some Cavity to contain it, and afterward a pressing of it forth into those pipes or holes, that are artificially made for the dividing it unto its appointed end; Now of this kind of Musick is the voice, and the Lungs being of a light, soft, spongy substance, are those parts, that do both draw in, contain, and press forth the air, the matter of the voice, according as there is occasion. And those Creatures that have no Lungs have consequently no voice, so that Fishes, which are herein deficient, are mute even to a Proverb. And man himself, if by reason of any preternatural matter stuffing the Lungs, or by reason of any violent motion, or long expiration, he becomes out of breath, he is not able to speak, much less to sing, till he have recovered it again.

Job 27 3.

1 Kings 17. 17. Psal. 146. 4.

The second sort of Organs that conduce to Musick, are such, as form the breath into a voice; And they by *Logicians*, under whose subject they do directly fall, are accounted nine, numbred up in this following Distick.

Smith adius ad Log. l. 1. c. 2.

Instrumenta novem, sunt guttur, lingua, pala-
Quatuor & dentes, ac duo labra simul. (tum,

And moreover, hence it is that the wisest of *Grammarians*, observing that the several words, by which man uttereth his voice, are formed against these several parts, sometime more against one, sometime more against another; have aptly divided their Letters, the first compounding parts of words into *gutturales*, *linguales*, *palatinæ*, *dentales*, & *labiales*, according as in their pronuntiation they bear themselves the hardest against either of those parts.

That part which these two Artists have called *guttur*, Anatomists do more strictly and properly call, *Trachea sive aspera arteria*; and since the word Artery is derived ἀπὸ τῦ τὸν ἀέρα τηρεῖν, this of all the parts of the body may primarily and most aptly bear that name: for this is the great Conduit pipe of air in respiration; it gives pass unto

unto it in *inſpiration*, and in *expiration* (whereby the voice is framed) it gives a certain impreſſion, which is the firſt alteration of it towards Articulation; which impreſſion doth remain in the voice when perfected; ſo that if theſe parts do firſt diſpoſe the voice to hoarſneſs or ſhrilneſs, or any other preternatural tone, the whole ſpeech hath a tincture of the ſame imperfection. And hence it is, that the Welſh pronunciation being performed by too hard a colliſion of the air againſt theſe parts, makes all their letters and words to become *guttural*.

The ſecond Inſtrument of the voice is *the tongue*, and this, by reaſon of its fungous ſubſtance, and volubility, is ſo meet, and ſo principal an agent therein, that ſpeech it ſelf, and all the variety thereof, doth among all ſorts of men go by the name of tongue; *There were in the daies of the Apoſtles dwelling at Jeruſalem devout men out of every Nation under heaven, and they all ſaid, we do hear them ſpeak, ταῖς ἡμετέραις γλώσσαις, in our own tongues, the wonderful works of God.* And this great miracle, both as unto hearing, and alſo unto ſpeaking, is introduced by the appearance of Cloven tongues, to ſhew that the chiefeſt inſtrument of the voice, was

Acts 2. 6.
Ver. 11.
Ver 3.

Ver. 4. was to be acted by the Holy Ghost; *For they began to speak with other tongues as the Spirit gave them utterance.* Among the many expressions that the Word of God abounds with, for the confirmation of this truth I cannot but take special notice of Psa. 139. 4. that of *David*, where he saith, *There is not a word in my tongue, but thou knowest it altogether.* As if that member alone kept the power of words within it self, and ordered them all according to its own pleasure; and where there is an inability of speaking, it is aptly said, such persons are tongue-tied, and when that faculty is again Mar. 7. 35 restored, it is said, *the tongue is loosed*; and so was it with *Zacharias*, concerning whom, after he had been dumb for a sea- Luk. 1. 64 son, it is said, *his mouth was opened immediately, and his tongue loosed, and he spake and praised God.*

The third Instrument towards the formation of the voice is *the pallate of the mouth*, for beside, that some particular Letters and words are formed more immediatly against this part, it doth also give strength & clearness to the whole voice, and to all the words that are pronounced in the mouth. And this it doth the better do, because the tenuous bone that makes the Pallate, is an arched roof, covered over with a

nervous

nervous skin, corrugated with several asperities, for the better retaining and rebounding the air in the voice. And all our places dedicated to divine service, are made of the same concamerated form on the top of them, (questionless in imitation hereof,) for the better sounding and echoing forth both of vocal and instrumental musick. And beside the bone which constitutes the Pallate, there is a little fleshy part, which is called the *Uvula*, that doth so much contribute to the voice, that it deservedly retains the name of *plectrum vocis*. That the Pallate or roof of the mouth is a great instrument in speaking, is sufficiently proved by the defect thereof, for if there be the least fault in this part, there presently succeeds a faltring in the Speech. So that a man may say to any Son of *Venus*, who hath followed her destructive enticements to this imperfection, *Thou also art one of them, thy speech bewrayeth thee.* This part, together with that last mentioned, is taken notice of, as serviceable unto speech, by *Job*, when he saith, *The Nobles held their peace, and their tongue cleaved to the roof of their mouth.* And God himself saith unto the Prophet, *I will make thy tongue cleave to the roof of thy mouth that thou shalt be dumb.*

Paulus Ægineta l. 6. c. 51.

Job 29. 10.

Ezek. 3. 26.

Fourthly,

Fourthly, *The teeth*, and especially the four fore-teeth, are very instrumental to our speech, *Dentition* and *Locution* are for the most part Contemporaries; toothing and speaking usually come, and go together; the Child cannot speak till he put forth his teeth, neither can he speak well, when he sheds them, nor leave his lisping till they come again. And the reason of it, is because there are many words that are pronounced by the dilatation of the tip of the tongue, and clapping of it against the teeth, which any man may easily experiment in himself, if he will but gently assay to pronounce any word that hath *Th* together in it; and all those Operators that live by setting in of Artificial teeth, do observe that they have more come to them upon the account of their speech, than for all other ends whatsoever; and indeed this ingenious help of Art, doth in no other defect of nature, make such compleat reparation.

The last Instruments of the voice are *the Lips*; even as the *Aspera Arteria* (as was said) gave the first Articulation, so these do give the ultimate Completion to our words; so that when they have once slipped this guard we can have no more power over them. *Nescit vox missa, reverti:*

verti: *that which is gone out of thy lips thou ſhalt perform*, ſaith the Lord. How exceedingly inſtrumental the lips are to ſpeaking, the Scripture doth abundantly prove, *He that will love life, and ſee good daies, let him refrain his tongue from evil, and his lips that they ſpeak no guile.* Hence is it, that as the *words* are, ſo the *lips* are often ſaid to be: therefore we read of *flattering*, *fained*, *lying*, *unclean*, *ſtammering lips*, &c. And again, words are elſewhere called, the fruit of the lips; *Let us offer the ſacrifice of praiſe to God, that is the fruit of the lips.* And theſe are the ſecond ſort of Organs that conduce to vocal Muſick, namely, thoſe that form the ſound unto a voice. Deut. 23. 23. 1 Pet. 3. 10. Pſal. 12. 3 17. 1. 31. 18. Iſa. 6. 5. 28. 11. Heb. 13. 15. Iſa. 57. 19.

The third are thoſe that modulate this voice into muſick; and although it here muſt alwaies be acknowledged, that every one of the parts before mentioned, do alſo contribute ſomething towards modulation; yet the more proper and peculiar inſtruments thereof, are the Cartilagineous parts of the *Aſpera Arteria*, or the windpipe; and eſpecially thoſe which are termed, *the Larynx and the glottis*. The *Larynx* is the head of the windpipe, which although it be but a very little part, yet doth conſiſt of more variety of compounding parts, than

than any other whatsoever; as little as it is, it hath thirteen Muscles belonging unto it, most of which are framed only for the modulation of the voice; some shut the pipe, some open it, some dilate, some contract it, so that acting severally, or joyntly according as there is occasion; they do wonderfully conduce to the variation of the tone. It hath moreover five Cartilages, whose substance and consistence is most apt of all other whatsoever, for the dividing of a sound; some of them are movable, some immovable, some of one form, some of another, that they may the better contain the air; and alter and break the voice into melody. Beside it hath certain Glandules belong unto it, which by their viscous moysture do so irrigate, and as it were oyle the pipe, that it takes off the harshness that otherwise would be found, and adds much sweetness and pleasantness to the Musick. The *glottis* is reckoned among the Cartilages before mentioned, yet because it is the principal instrument of modulation, we cannot but take most special notice of it. And it therefore bears its name, because what eminency the tongue hath above the rest in reference to our speech, the same hath this part in reference to our singing; for the air being

pressed

preſſed forth from the Lungs, this part riſeth up to meet it, embraceth it, plaies with it, and by a certain innate property of its own, without the help of Muſcles, alters it, divides it, at its own pleaſure, into all that diverſity of amplifications and flouriſhes, that the Art of man can poſſibly reach unto. If a man make a pipe in the middle of a green reed, and leave the inward thin film as the tongue of the pipe, and then breath againſt it; he ſhall then find, that tongue to receive the breath, and ſo to modulate it; that it ſhall be a lively, though but a ſhort reſemblance, of what we are now ſpeaking of. And indeed, whatſoever Art can do, muſt give way to the works of nature: And that one pipe in man, which hath the wiſdom of God for its formation to the intent of muſick, can amplifie and divide a ſound, to as much variety of muſical accents, as *Davids* Inſtrument that had ten ſtrings. [Pſa. 144. 9.] For there is no Inſtrument howſoever formed, that can ſurpaſs the muſick of the voice, which is performed by the ſeveral Organs we have here recited, which may therefore juſtly be called, the Active Daughters of Muſick.

The Paſſive Daughters of Muſick, are thoſe which only receive the Muſick that

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is by others made, and these are the Organs of hearing; which indeed may most properly be called, *Filiæ Carminis*, or *Filiæ Cantici*, and seem primarily to be intended in this place; for as a learned Commentator rendreth the reason of it exceeding well; *Aures ad hoc unum factæ sunt, ut voces & Carmina audiant, quare ex iis natæ, eorumque filiæ esse videntur.* And again, *Objectum delectabile efficit in auribus sensationem delectabilem, quare ejus quasi parens, & mater esse videtur.* All the several graces and eligances of Musick, the soft and silky touches, the quick and pleasant relishes, the nimble transitions, and delicate closes, are far more exactly represented in the Instruments of hearing, than the Image of the Mother is in the Daughter; *Ventrem sequitur partus*, the birth is like the belly that bears it, but the Musick that is heard, is even the same with that which is made: For there is a continuation of the audible Species from the maker of them, to the last receiver; without any production of new. And that this may be the better done, there are several parts, both for the apprehending of the variety of sounds, as they pass up and down in the air, and also for the Commodious conveying of them, that they may

Cornel. à Lap.

may make a due impreſſion upon the proper Organs of Hearing; plainly, there is the outward and the inward Ear.

The outward Ear is ſpread abroad like a net, that it may catch and gather into it ſelf, that *vocalem*, or *ſonantem undam*, as it roles about the Ocean of the Air; which that it may the more conveniently do, the Cartilagineous part of it is divided into two winding Channels, called the *Helices*, or *Elices*, which draw and ſuck into themſelves the wave before mentioned, and paſs it into the Auditory gulph. I know the word *Helices*, is moſtly wrote with an *H*, and then it muſt be derived from ἑλίω *cum aſpero*, which ſignifieth *Involvo*, *Circumago*, *Circumvolvo*. And thus primarily the word ſignifieth a certain ſort of twining Ivy, and from thence then muſt the Metaphor be fetched, and that very appoſitely, relating to their form: But I rather incline to thoſe who write it without an *H*, and then it muſt be derived from ἑλίω *cum tenui*, which ſignifieth, *Coarcto*, *Cogo*, *in anguſtum redigo*, *in arctum Congrego*, and thus the word ſignifieth primarily, little Channels that are made to draw the water from ſome great and broad overflowing *ſulci aquarii*, water furrows

Aveen.

or trenches to draw in the ſtream, and this relates to their uſe. And thus it is an elegant Metaphor from waters; for theſe parts do *Elicere*, allure and ſuck into their narrower Channels thoſe ſounds that wander more at liberty in the open air; and then they convey them to the *meatus auditorius*, which is ſufficiently defended by the *Tragus* that is over it, and the *Antitragus*, that is near it, ſo that no violent noiſe can offend it, nor any preternatural matter fall into it, to obſtruct it. This outward Ear is placed upon the *Os petroſum*, on the ſide of the head, and at ſome diſtance from the head, and were it not preſſed and bound down while it was tender, it would ſtand at a further diſtance, and conſequently more commodious for hearing; ſo that while our Mothers and Nurſes ſtudy Ornament, they injure us: Indeed, they do hereby make us more unlike to the beaſts, but it is in ſuch an excellency, that it were well for us if we ſurpaſſed them. And hence may the reaſon be given, why thoſe that are thick of hearing, may find great benefit by laying their hand dilated behind their Ear, or uſing ſome *Otaconſtiron*, and placing the mouth of it towards the ſound, that they may thereby the better apprehend it; like unto thoſe Animals, that liſtning

ning after any noise, prick up their ears, as we say, and cast them forward, for the more expeditious receiving those motions of the air, that otherwise would pass by them more insensibly.

The inward Ear is a great secret, and such an one, that while the men of greatest knowledge have gone about to find out and describe, they have every one of them sunk under his burden, and confest his own inability in some such expression, as the Psalmist concerning the general frame of mans body; *Such knowledge is too wonderful for me, it is high, I cannot attain unto it.* Psal. 139. 6. The first part we meet with is a thin, strong, pellucide Membrane, called, the *Tympanum*, which being placed transverse the hole of the Ear, doth divide between the outward and the inward Ear, as the Diaphragme doth between the breast and the belly; within this there are three Cavities, the *Concha*, *Labyrinthus*, *Cochlea*; there are also three little bones, the *Malleolus*, the *Incus*, and the *Stapes*; Moreover, there is implanted in the Ear, a pure, subtill, and quiet air; which is called, *aer innatus*; And lastly, and chiefly, because the proper Organ of hearing, we may observe the Filaments, or the utmost extremities of the softer part of the Auditory

Nerve, as they are wonderfully disposed in the inward Cavity by the innate air; and then the whole Nerve it self; by the help of these several parts our hearing is thus performed. The motion of the air (as that of the water) is continued by certain circles and rings, till it be taken by the outward ear, and by the *Elices* is conveyed upon the head of the *Tympanum*, where it makes the very same impression that it received from the body that made it; which impression, by reason of the Conjunction of the bones before mentioned, is continued unto the innate air, which, because in its self most quiet and still, is easily moved according to the motion of the *Tympanum*; so that the Filaments hereunto annexed must of necessity answer the foresaid motion, and so consequently gather into themselves the sound or musick, which they convey to the Auditory Nerve, that from thence it may be sent to be discerned and judged in the inward sense.

These are the Daughters of Musick, which, so long as man abides in strength, are exceeding lovely and flourish; but as he declines in age, these also pass their flower, they become humbled, and decline apace towards uselessness and deformity.

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In Age the ſeveral holes and Cavities of the Ears are ſtopped, the Drum is unbraced, the Hammer is weakned, the Anvill is worn, the Stirrop is broken, and the inward Air is mixed and defiled, the Filaments are dulled, the Nerve it ſelf is obſtructed; ſo that there cannot but follow heavineſs of hearing, and at laſt, deafneſs it ſelf. And this is that imperfection which *Barzillai* complains of to King *David, I am this day eighty years old, and can I diſcern between good and evil? Can I hear any more the voice of ſinging men, and ſinging women, wherefore then ſhould thy ſervant be yet a burden to my Lord the King?* 2 Sam. 19. 35. And this certainly is the principal Symptome here intended by theſe words, *The Daughters of Muſick ſhall be brought low.* And therefore the Vulgar Latine tranſlates it only, *Obſurdeſcent omnes filiæ Carminis*; but the word השח is of a far larger ſignification, and might be tranſlated many waies, as *Deprimentur, Dejicientur, incurvabuntur*; but cannot poſſibly be better tranſlated than it is already by the Seventy, ταπεινωθήσονται, *humiliabuntur, brought low.* And this ſtill holds out the native Latitude of the word; which I would by all means have preſerved; that all the Daughters of Muſick, both Active and Paſſive, and

their infirmities in age may be here included; so that all those symptomes of the decrepit state of man, that belong to any of the Organs before mentioned, whether of speaking or hearing, are to be understood by this last clause; *All the Daughters of Musick shall be brought low*; and such are these that follow: *Dispnœa sive spirandi difficultas, destillationes tussim inferentes; diædia ædemia, sive vocis abolitio, diminutio aut depravatio; exsiccatio asperæ arteriæ, induratio Cartilaginum Laryngis, sordes aurium, præcipuè autem barycoia sive gravis auditus & surditas.*

Verse 5.

Also when they shall be afraid of that which is high, and fears shall be in the way, and the Almond tree shall flourish, and the Grashopper shall be a burden, and desire shall fail; because man goeth to his long home, and the mourners go about the streets.

HItherto Age hath been described unto us, as it hath influence upon all the functions and Faculties of a man; Superiour and Inferiour; Inward and Outward;

ward; Animal, Vital, and Natural. And the Preacher hath exactly declared unto us, how far they are all weakned in this declining ſtate; he now in this Verſe paſſeth to another head of Symptomes, which is uſually called, *Qualitates mutatæ*, taking notice of the ſimple affects, and thoſe eminent and moſt remarkable alterations that attend men in this condition. And here again he doth moſt elegantly run over all the parts of man, and give only one moſt ſignificant alteration in each of them. The Compounding parts of man (as all men know, and as we have already heard) are the Soul and the Body. The principal affect of the mind in Age, is that of fear, which is hear expreſſed in reſpect of a double Object, a greater and a leſſer; which conſequently makes the paſſion leſſer or greater; according to the encreaſe of Age; *They ſhall be afraid of that which is high, and fears ſhall be in the way.* The parts of the body are either inanimate, or animate; of the inanimate parts, the Hair receiveth the greateſt alteration in Age, which is here ſignified by theſe words: *The Almond tree ſhall flouriſh.* The animate parts of the body, are alſo of two ſorts, either the hard, and cruſty parts, or the ſoft and ſpongy parts; and theſe two are uſually

known by the names of the Spermatical and Sanguineous parts. The change of the former of these in age, is intimated unto us, in those words, *The Grashopper shall be a burden*; the change of the latter in those, *Desire shall fail*; as it followeth more clearly hereafter. After this most mysterious and Hieroglyphical description of the Symptomes of Age, he doth in a plain and easie transition pass from those general Symptomes that attend a man all along this state of weakness, unto those particular ones, that do more immediatly forerun his dissolution: *For man goeth to his long home, and the mourners go about the streets.*

They shall be afraid of that which is high, and fears shall be in the way.

The powers and faculties of the mind, as they are weakened in age, are abundantly described in the second Verse: In these words is notified unto us, that most remarkable change that is made upon the affects and passions of the mind in the same condition. And this is only in respect of fear, and those that are nearly related unto it. For as for those which are placed, ἐν τῷ ἐπιθυμητικῷ, *in appetitu Concupiscente*, such as Love, Hatred, Desire, Joy,

Joy, and the like; they are in no wiſe exceſſive in this weak ſtate of age, foraſmuch as a firm and a vigorous habit of body, quick and lively ſenſes, both outward and inward, do moſt promote them; So that where there is a general defect in both theſe, and all deſire doth fail, it is not to be ſuppoſed, there ſhould be any predominancy of any of thoſe paſſions, that proceed from the Concupiſcible appetite; as for thoſe which are placed, ἐν τῷ θυμικῷ, *in appetitu iraſcente*; They all have for their object either good or evil; thoſe which have good for their object, as Hope, and ſuch like, have little or no place in the time of age, foraſmuch as it is an evil time, and there is no pleaſure in it. Now, all imminent evil is looked upon either as vincible, or invincible; if a man look upon an approaching evil, as that which he is able to overcome, it naturally produceth boldneſs in him, which is the contrary paſſion to fear, and can in no reſpect agree to the ſame perſons. It remains therefore, that that diſtreſs of the mind, which ariſeth from the apprehenſion of ſome approaching evil, that is either deſtructive or burdenſome to our nature, and not eaſily reſiſtible by our ſtrength, is the paſſion that is moſt incident

to

to Age. True it is, that anger and vexation, grief and ſadneſs, and ſuch like, as have for their object ſome preſent evil, and border hard upon this we are ſpeaking of; may in ſome meaſure be found in Age; yet the true and proper, the moſt notorious trouble of the mind, is that dumpiſh, melancholy, deſtructive paſſion of *fear*; which together with all its attendants and neceſſary conſequences, ſuch as ſuſpition, jealouſies, ſuperſtition, diſlike, inconſtancy, betraying the ſuccours of reaſon, are too familiarly obſerved in the beſt of men that are crooked with age; And by how much the more man declines, by ſo much the more do theſe ſuperfluities encreaſe, like Miſletoe, and ſome other Excreſcencies of trees, that flouriſh not, till the ſtock decay from which they ſpring. And the reaſon of it is, becauſe the true Cauſes of this affection (namely, miſapprehenſions of the things feared, and inability to reſiſt them) are encreaſed together with age, and therefore muſt needs produce their anſwerable effects. The firſt of theſe Cauſes, proceeds from the weakneſs of the Imagination; the other, from the lowneſs of the ſpirits, and the imbecility of the outward Organs:* The firſt, makes the Cauſe of fear to ſeem the greater;

greater; the other, to take the deeper impression. Imagination puts a double fallacy upon ancient men; first, it makes them undervalue themselves, and minorate their own abilities; and then it makes them overvalue the objects of fear, and make them far greater than they are; like some Perspective glasses, that at both ends misrepresent the things seen, yet with a contrary appearance, at one end making them appear lesser, and at a farther distance; and at the other end, greater, and nearer than they ought. And hence it is, that they are so timorous upon every the least occasion; that which is said of wicked men, may also be said of old men; *They are in great fear where no fear is; Quæ finxêre, timent*; the weakned Imagination creating objects of fear unto it self, or at least much falcifying them, and encreasing them, like the man in the Gospel, that had but an half and a broken sight, *He saw men as big as trees walking*. Again, the dulness and heaviness of the spirits, and the impotency of the members, renders a man most obnoxious unto fear; the spirits being of a strong, quick, and subtile motion, are the principal instruments of intercourse between the soul and the body, and do consequently bring in the greatest

Psal. 53. 5

aid

aid and assistance against this passion; but, in age they are benummed as it were, and congealed, so that they cease much what from their operation and motion, and can administer little, or no courage at all.

Nor is it thus onely with the Spirits, but the Organical parts also of the Body, are in this state made unfit for their Functions, and altogether unserviceable to resist the very appearance of danger; and stand (as I may so say) ready prepared for the entertainment of fear; The great consequences whereof, such as whiteness and stiffness of the hair, trembling of the joynts and heart, impotency of speech, failing of the eyes, and astonishment, paleness of the face, horrour, gnashing of the Teeth, involuntary Emission of Excrements, are very easily produced in this condition; nay, they are most of them already there to be found, without an object to effect them; therefore no wonder if those things which are τὰ κίνα κινδύνου to the strong Man, prove φοβερίλλα to the decrepit.

These things were known to be true, without an Instance; yet, I cannot but take notice of *Jacob*, who, while young and strong, did exceed most Men we read of, for Courage and Boldness; with what audacity did he manage the two great Enterprizes

prizes of obtaining both the Birth-right and the Bleſſing; and that while he was yet very young? with what Courage did he undertake, and go through with a long and loneſome journey, an hard and a deceitful Service? but when he was old he was of a more timorous ſpirit: it was fear let fall that paſſage, *If I am bereaved, I am bereaved.* Such newes as one would have thought would have refreſhed his heart, when he was old overcame it; *for when it was ſaid Joſeph is yet alive, and he is Governour over all the Land of Ægypt, Jacobs heart fainted*: Fear was a paſſion ſo ready at the door, that it ſtept in firſt, and had almoſt over-born him, and left no place for joy to enter in. Good *Eli* when he was very old, was very fearful, he timorouſly reproves the outragious wickedneſs of his lewd Sons; and after this black and dreadful enemy had once taken poſſeſſion of him, it followed him continually, and dogg'd him till he died. When the *Iſraelites* and *Philiſtines* were about to joyn Battel, he ſate in a fearful poſture, and it is ſaid, *his heart trembled*; and when the iſſue was told him, *he fell from off his ſeat backward, and his Neck brake that he died*; and the reaſon is added, *for he was an old Man and heavy.* I will not here be ſo bold as thoſe

Gen. 43. 14.

Gen. 45. 26.

1 Sam. 2. 22.

1 Sam. 4. 13.

V. 18.

that

that say (building their opinion upon the original word) his falling down backward and dying, was from a voluntary Principle; but I dare say, it was from an inward one: his Age had so enfeebled him, that he was not able to bear the newes of a defeat, especially such an one, wherein the Ark of God was taken, but his darksome inward foe, taking advantage hereupon; strikes him surely, under the fifth rib, that he died.

The Objects of old Mens fears are here presented unto us under a double notion; First, those things which are high, *Excelsa timebunt, aut de excelso; They shall be afraid of that which is high:* Secondly those things which are lower, more plain and obvious, even in the way; *Consternati in via, vel formidabunt in viis; Fears shall be in the way.* Consternation and Fearfulness do not surprize Men, and overthrow them all at once; *Nemo repente fit timidissimus*; but they come on by degrees, and first those things that have more of dread in them, become the objects of their fear: *High things*; *high*, either in respect of place, as steep and eminent Wayes, Hills, and Mountains, Steeples and Towers, which formerly they could without fear ascend, and walk upon: or *high*, in respect of the Air,

Air, as Fiery Meteors, Strange Apparitions, Thunder and Lightning, and such like: or *high*, in respect of abstrusness, or mysteriousness, as the deep and subtile points in Divinity, about the Escence of God, and the duration of Eternity, about the Immortality of the Soul, and changes of the Body, and many other things, which while young they could better have born the Discourse of: or *high*, in respect of Hardship, or Difficult; those great Enterprises, and hazardous Undertakings, which while strong they durst with boldness have ventered on, do now become a terror to them, even in the thought of them; but as Age comes on, and their feares increase upon them, not onely those things which are high, but even plain and easie things becom the objects of their fear; *Pavores in vla:* Mole-hills are now as dreadful, as Mountains were before; every thing that is near them, and about them; every thing that is plain and obvious; every matter that is facile, and easily attainable, bears it self with terror towards them; they are afraid of every thing they are doing: they walk in fear, sometime least peradventure they should dash their foot against a Stone; sometime least that other People heedlessly passing by, should rush upon them, and injure

injure them: being conscious to themselves of their own impotency, it makes them most obnoxious to this terrible passion, which is the great change that is made upon the Mind in the time of Age.

The Almond Tree shall flourish.

The Symptome last treated of was in reference to the great change that is made upon the *Mind* of Man; those which follow have reference to the *Body*. And that we may accurately observe the Wise Mans Method, we must premise one common distinction of the parts of the body; for we must know that these are not independent sayings, cast forth at a venture, but a most exact and methodical Treatise of the symptomes of Age, as it influenceth and altereth all the parts of a Man: Now the parts of the Body (as the word is taken in the largest signification) are either Animate or Inanimate; either such as participate of the life of the whole, and are nourished by the intra-susception of enlivened aliment; or such as have no life at all from the Body, or in themselves, and are nourished only by the juxta-position of an excrement: Of the first of these, there are very many in the Body of Man, which are treated of in the following words: of the latter

ter of these there are very few, as the nails and the Hair; and of these the hair receiveth the most notorious alteration in Age, which is here signifyed unto us by these words; *The Almond Tree shall flourish.*

The word which is here translated an *Almond Tree*, is from the original word שָׁקַד, *advigilavit*, to watch, or wake, as it is used in that place; *The Watchman waketh but in vain*: And by way of Analogy it is translated to signifie *Amygdalus*, the *Almond Tree*: *Quaprima inter arbores evigilat*; because this Tree before all others first waketh, and riseth from its Winters repose; it Flowers in the Moneth of *January*, and by *March* brings its Fruit to Maturity. The forwardness of this fruit-bearing Tree is intimated unto us by the vision of *Jeremy*; for the Word of the Lord came unto him, saying, *Jeremy what seest thou? and he said, I see a Rod of an Almond Tree: Then said the Lord unto him, thou hast well seen, for I will hasten my word to fulfill it.* The same word is in this Text used, both for the *Almond Tree*, and for *hastening*; *Thou hast* therefore *well seen.* Nothing could have better represented the speedy fulfilling of the Word of God, then that *hastening*, the *Almond Tree.* The manner that the Wise Man is pleased here

Psal. 127. 1.

Plin. lib. 16. c. 25.

Jer. 1. 11. 12.

to take, to expreſs the great changes that happen to the Body of Man in the time of Age, is according to that intricate, and moſt myſterious, and ænigmatical way of the *Ægyptians*; whereby they are wont to expreſs their meaning of the things intended, by ſome other Creatures which do moſt reſemble what they are ſpeaking of. Now there is no change that befalleth Man that can be ſo lively repreſented by the blooming of the Almond Tree, as that whereby the Hair of the Head becomes Hoary and White; and therefore *florebit amygdalus*, muſt needs ſignifie unto us, this great alteration; which bears reſemblance unto that of the Almond Tree in ſeveral particulars, ſome of which follow hereafter.

Firſt, They are both of them of the ſame colour, and repreſent themſelves alike to the ſight; the Bloſſomes of the Almond Tree are perfectly white, and ſo are the Hairs of the Old Man, and they are not onely nakedly of the ſame colour, but both of them ſo, by way of eminency; not only white, but the whiteſt of all, none ſo white as they: *Flores amygdali primi exiſtunt & maximi ſunt albi præ cæteris arboribus.* So alſo is it with Man in the time of Age, he is white, and no Creature, living to that time, ſo white as he: and hence it

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is that *Logicians* make *Canescere* to be *proprium homini, tertio modo; quod convenit omni, soli, non semper.* They will allow no Creatures at all to grow white when they are old, as Man doth: and although our Sense teacheth us, that almost all Creatures tend towards that colour, yet they very much vilifie it in comparison of a Man, and therefore give it a far more inferior, and an unhandsome Name. *Griceſcere.*

Secondly, They do very much agree in their hastiness, and forwardness of putting forth; how early and quick the Almond Tree is in putting both its bloom and fruits hath been already shewn; and might yet farther be confirmed in that great Mystery the Rod of *Aaron*, which although it was miraculously changed in one nights time, as a Token against the Rebels, to take away their Murmurings; yet it is to be noted, that it was done upon this forward Wood: *And it came to pass that on the morrow, Moses went into the Tabernacle of Witnesse, and behold the Rod of Aaron for the House of Levi was budded, and brought forth buds, and bloomed Blossomes, and yeilded Almonds.* But naturally also, this bloomes much sooner then other Trees; this is the true *Erigeron*, that early in the Spring-time bears the represen- *Numb.* 17. 8.

tation of Old Age. Now it is better known to all Men how exceeding forward Gray-Hairs are.

Obrepit properata malis inopinata senectus,
Intempestivi funduntur vertice cani.

There is no Symptome of Age puts forth its self sooner then this; and as the Almond Tree buds sooner by two or three Moneths then most other Trees, so do these hasty buds of Age appear sometime twenty or thirty years before some others: Some Mens Hair begins to change when they are but thirty or forty years of Age, whereas many other symptoms appear not till they have passed sixty or seventy years. These steal upon Men suddenly, before they are aware, to which the Prophet doth allude in those ripe and unexpected Judgments that were falling upon *Ephraim*;

Hos. 7.9. *Gray haires are here and there upon him, yet he knoweth it not.*

Thirdly, They do agree in their eminency and remarkablenes, they are both of them most signal things; Men stand still and admire if accidentally they cast their eyes upon the Almond Tree that stands all on the Blossome; and so they do if they behold a comely and honourable Head

Head of Hair, that is as white as that: the Trees that bloſſome in *March*, or *April*, are little taken notice of, becauſe then it is a common thing, neither have they that ſplendor upon them, that the Almond Tree hath, that advanceth its moſt comely top all alone, while all other ſleep in their Winter Garments: In like manner the Almond Head is taken ſpecial notice of among a thouſand, every one being very deſirous to behold it, and that with great admiration and reverence; *The glory of young Men is their ſtrength, and the beauty and honour of old Men is the Gray-Head:* And this honour is put upon it by the ſpecial appointment of God himſelf, *Thou ſhalt riſe up before the Hoary Head, and honour the face of the Old Man, and fear thy God: I am the Lord.*

Prov. 20. 29.

Lev. 19. 32.

Fourthly, They are very much alike in their Indications, they are both of them moſt certain *Diagnoſticks* of the thing they appertain to; if there are no other ſigns then they, yet may all Men be very well aſſured of the truth they beſpeak; If there be no other Tree in all the Woods, or Orchards, bloſſomed beſide the Almond, yet know aſſuredly from thence, the Spring is come; if there be nothing at all beſides that ſhews it: if no Flowers appear on the Earth, if the ſinging of the Birds be not

Cant. 2. 12, 13.

come, if the voice of the Turtle be not heard in the Land, if the Fig-Tree doth not yet put forth her green Figs, nor the Vines with their tender Grape give a good ſmell; yet if the Almond Tree be bloſſomed, know of a truth, that the year is turned, and that the Sun is coming neerer towards us, and that the Sap ſtirs, though it be not elſehow perceived: The ſame certainty of demonſtration alſo doth attend the Hoary Head; if no other ſymptome appear, yet if the Hair begin to change white, know from thence, that the Winter of Age hath already begun to ſhew it ſelf; the evil dayes are coming on apace, though the Sun, or the Light, or the Moon, or the Stars be not darkned; though the keepers of the Houſe, the ſtrong Men, the Grinders, and the lookers out of the Windowes, be not yet enfeebled; though the Doors be open in the Street, and the voice of the Grinding, and the Daughters of Muſick be as high as ever; yet if the Almond Tree flouriſh, if the Hair of the Head be changed to White, it is an undoubted Indication of the weakneſs attending age: the habit of the Body is already changed, the innate heat begins to be ſuffocated, the radical moiſture is conſuming, the excrements (which conſtitute the Hair) are inconcoct-

ed,

ed, and the temperament of Old age hath already ſeized the Man, although it be no other wayes to be diſcerned.

Laſtly, They do alſo exceeding well agree in their *Prognoſticks*; they are both of them moſt certain fore-runners and foretellers of what is to follow after them. If the Almond Tree be bloſſomed, it is a moſt certain ſign that Fruit will come after, and that it is not far behind; *Aarons* Rod budded (as you heard) and ſoon after it brought forth Almonds, the Flowers are in order to the Fruit that muſt ſucceed.

——Cum ſe nux plurima ſylvis
Induet in florem, & ramos curvabit olentes,
Si ſuperant fœtus, pariter frumenta ſequen-
(tur

And thus Gray Hairs the flowers of old age, do give a certain Prognoſtick, that death which is the Fruit thereof, is neer at hand. *Jacob* ſaith concerning his ſon *Joſeph*, *If miſchief befall him by the way, then ſhall ye bring down my gray hairs with ſorrow to the grave.* A ſad accident might have brought them down with ſorrow to the grave; but they would have come as *ſurely* without. Theſe are Church-yard Gen. 42. 38.

flowers, which may ſerve to them that bear them, in ſtead of Paſſing-Bels, to give them certain notice, whither they are ſuddenly going. There are ſome Naturaliſts who are yet bolder, and affirm, that the very thought and imagination of gray hairs, even in the dreams of them, though in a Perſon never ſo young, do portend the ſame thing: When they were Sacrificing in behalf of one of the Emperours of *Rome*, the hairs of a Boys Head, who did Adminiſter to the Prieſts were all on a ſudden changed to white; which the Soothſayers and Wiſe Men did preſently interpret to the Change of the Emperour, and that an Old man ſhould ſucceed, which accordingly fell out; for *Nero*, who was but one and thirty years old, was ſoon taken away, and *Galba*, who was ſeventy three, Reigned in his ſtead: There is far more certainty in the reality of the thing. It may thus fall out to young men, but it muſt thus fall out to old: *Mors, ſenibus, in ſuribus eſt; juvenibus, in inſidiis:* Young men are taken away, but Old men goe away, in their own natural courſe; for *Candidi* are *Candidati mortis, & per eam, immortalitatis.* Thoſe that are white are marked out in order unto death, and thereby unto immortality.

ty. There might many other Particulars be assigned, wherein the Almond-Tree and the Hoary Head do exactly agree, but these few may suffice to shew us, that the change of no other part of the Body in age, can be hereby figured out unto us so properly as this we have been speaking of.

Beside *Canities* is a constant attendant on age, and is intimated unto us in no other part of this allegory: How often in Scripture are they mentioned both together? *I am now old and Gray Headed,* saith *Samuel:* and *David* Prayeth, *When I am old and Gray-Headed O Lord forsake me not.* Nay, I may say one thing of this Symptome, that is not to be said of any of the other; It is a plain and a full description of Age, without any addition at all, say a Gray-Headed man, and you say an Old man, without any farther *Periphrasis. The sword without, and terrour within, shall destroy both the young man, and the Virgin; the Suckling also, with the man of Gray Hairs.*

1 Sam. 12. 2. Psal. 71. 18. Deut. 32. 25.

The

The Grashopper shall be a burden;
Or rather,
Shall grow (or shew) big and burdensome.

In the interpretation of this sentence, and that which follows, which doth depend hereon, I must of necessity recede somewhat both from the common Translation, and the usual interpretation of the place; wherein, if my opinion, together with its novelty, bring along with it any thing of satisfaction, I presume it will be never the worse accepted: For in these Theoretical notions, the danger is not so great, to deviate from the beaten road, and to be Heterodox to the general received opinion. For the subject of this Proposition, without all controversie, it is the Locust or Grashopper, which differ very little, either in their nature or form, and may very well intend the same thing: The predicate is far more difficult, and therefore hath given occasion to more variety of translations; that which is most usual is, *Erit oneri*, which our English exactly follows, *The Grashopper shall be a burden*; from whence most Interpreters do put this sense upon the place, *viz.* that the Grashopper, or any such small thing, is a great burden to old men; which although it may

may be a truth, yet it can in no wise be intended by these words. For then King *Solomon* would in this clause vary much from the general scope of all these verses, which is (as hath already been said) Allegoricall, and from the particular mode of expressing himself in this verse, which is Hieroglyphical. Beside the words in no propriety of Grammer can possibly bear such a sense as this; and it hath been a great wonder to me how this Construction was first taken up, and how it hath gained so great credit among men: Nor can I yet give my self the least satisfaction herein, unless it be from the ambiguity of the Latine Phrase, *Erit oneri*, which may very well be taken in a double sense; either *Erit oneri seni, seu alteri*; or *Erit oneri sibi*. The first of these must be taken for the carrying the words to the interpretation which hath been before mentioned; but how incongruous it is to the very Grammatical reading of the words, any one who is the least skilled in the Original can easily give an account. For what is here predicated is directly predicated of the Grashopper, and not in relation to any other person, or thing else whatsoever. And hence some have translated it, *Onerabitur, sive gravabitur*; others, *Onerabit, sive*

ſive gravabit ſe; others, *Creſcet*; the Vulgar Latine gives the Metaphor one remove more, to thoſe that are burdened with fleſh or fat, rendring it, *impinguabitur Locuſta*; but the Tranſlation of the Septuagint upon this word is moſt remarkable, and gives very great light to the underſtanding of the true meaning of the place, παχυνθὴ ἡ ἀκρὶς, *Craſſabitur, denſabitur, vel pinguecſet.* Wherefore that the doubtfulneſs of ſpeech, both in the Latine and Engliſh, (which hath miſled moſt Interpreters) may be for the future removed, I judge it moſt convenient that the Tranſlation of the Vulgar Latine take principal place, or that it be rendred in Latine, *Locuſta, onuſtam ſe reddet*, or, *præbebit*; which the Conjugation doth moſtly favour; and in Engliſh, the Graſhopper ſhall grow (or ſhew) big and burdenſome. For the right underſtanding of which words, we muſt be ſure to enquire, what parts of the body of man they are, that may be moſt aptly repreſented by the Graſhopper, and what change that is, that is here denoted unto us: Which that we may the better do, we muſt alſo take notice of one ſpecial diſtinction of the parts of the body.

Of the parts of the body that are enlive-

ned

ned by the ſpirit of the whole (for of the other mention was made in the laſt) there be two ſorts: Either the fluid, moyſt, ſucculent, tender, and ſoft parts of the body; or the dry, ſolid, tenſile, hard, and cruſty parts of the body. The firſt of theſe, ſeem to be intended in the following words, the laſt of theſe, in theſe that are before us. This diſtinction is uſually termed, the diſtinction of the Philoſophers, in oppoſition to all thoſe manifold diviſions of the parts of the body, that are to be found among Phyſicians; And indeed it hath more of clearneſs and demonſtration in it, than any of the other; neither that of *Hippocrates* in ἰσχοντα, ἰσχόμενα, & ὁρμῶντα; nor that of *Galen*, *in ſpermaticas & ſanguineas*; nor that generally received among moſt, *In ſimilares & organicas*, is without its difficulties; It hath put very learned and ingenious men very hard to it, to make the beſt of theſe ſtand firm againſt its oppoſers: but this that we are now ſpeaking of, is ſo plain and obvious to the ſenſe, that no man ever yet diſallowed of it, or hath at any time undertaken to contradict it. Indeed, that diſtinction of the parts into ſpermatical and ſanguineous, as uſually it is applied, comes the neareſt to what is here intended; but the

the terms are not ſo proper; and beſide, they are built upon a falſe foundation, which is, that the ſeveral parts of the body have their origination from ſeveral and diſtinct principles of generation: *viz. ſemen & ſanguis menſtruus*; but the ingenuity of this later Age, hath juſtly exploded ſuch a Doctrine as that, and hath brought all knowing men to confeſs, that all the parts of the body, both of one kind and of another, have their original equally from one and the ſame ſeminal matter. And yet the former diſtinction of the parts, *in molles & duras*, may be found to have a juſt right, even from their firſt producer. For the ſeed it ſelf, is not of ſo equal a ſubſtance and conſiſtence, but that variety of parts, as to ſoftneſs and hardneſs, may eaſily be diſcerned in it. And this *Job* (beyond all humane Writers whatſoever) doth plainly declare, when he ſaith, *Thou haſt poured me out like milk, and crudled me like Cheeſe.* The very firſt matter of generation in this reſpect hath a double ſubſtance; there is a lacteous, and a caſeous part therein; there is a tenderer and a more fluid part; there is alſo a more Condenſed and Coagulated part; which are apt to produce afterward parts in the body of the like diverſification; as the following

Job 10. 10.

ing verſe doth plainly expreſs; *Thou haſt covered me with skin, and with fleſh; thou haſt fenced me with bones and with ſinews*; bones and ſinews, they proceed from the cruded part of the ſeed; fleſh of all ſorts, both Muſculous, Parenchymous, and Glandulous, that proceeds from the fluid or milky part; and skin, that is the *medium participationis* of them both. *Fleſh and bones* therefore ſeem to ſtand in the greateſt oppoſition one unto another in reſpect of this diſtinction of the parts; And all the other parts of the body to each other, as they have relation to one of theſe. Now which of theſe two the Graſhopper doth beſt reſemble, is very eaſie for any one to give an account.

The Locuſt and Graſhopper are both of them hard, cruſty, cragged, crumpling Creatures, differing from all others principally in the protuberance of their limbs, having their legs ſtrangely crooked, and their joynts very cloſely inverted, and at a great diſtance from the trunk of their body. And this is the moſt remarkable thing in their frame, and that by which they are deſcribed in the Book of God; *Yet theſe may ye eat of every flying creeping thing that goeth upon all four, which have legs above their feet to leap withal upon the earth,* Lev. 11. 21.

earth; And afterward they are enumera-
Ver. 23. ted, *The Locuſt after his kind, and the Graſhopper after his kind.* This then being the known form of theſe Creatures, they do moſt aptly repreſent the hard and ſolid parts of the body, the bones and their protuberances, and all thoſe parts that are produced from the thicker part of the ſeminary matter. *Oſteologers* have very well obſerved, that the parts appertaining to the bones, which ſtand out at a diſtance from their bodies, are either the Adnate, or the Enate parts, either the *Epiphyſes*, or the *Apophyſes* of the bones. The firſt of theſe in Age grow harder and more compact and affixed to the bones themſelves; the laſt of theſe in Age grow more apparent, and ſeem to be bigger, and ſtand at a farther diſtance, than they did before: And unto this it is that the *Chaldee* Paraphraſe doth directly point; *Inflabuntur tali pedum tuorum.* Now, the *Tali* are ſometime taken for the *Aſtralagi*, the bones in the heel, and ſometime for the *Malleoli*; the *Apophyſes*, of thoſe two bones which conſtitute the leg, namely, the *Tibia*, and the *Fibula*; all which, together with them that anſwer them in the wriſt, and all other bunching parts of the bones, (which would be needleſs particularly

larly to name,) do in age appear far bigger, and at a greater distance from the body of the bone, than they did before. Yet I cannot but take more special notice of one sort of bones, whose *Apophyses* are more eminent, than any others; and may therefore be more aptly resembled by the Grashoppers, and they are the *Vertebræ* of the Spine; every one of which, both in the neck, in the back, and in the loyns, have seven several prominencies, four oblique ones, namely, two ascending, and two descending: two transverse ones, and one acute, strait forward towards the skin. Now, when man by reason of age begins to stoop and bend forward, and withal those fleshy parts, that cover these processes, begin to shrink and decay, (as shall be shewed in the following symptome) it must necessarily follow, that all those *Apophyses* must appear a great deal plainer and bigger, than they were before, whereby they will so exactly resemble the several protuberances of the limbs of the Grashopper, that no words can sufficiently express their likeness, and none but the diligent observer of them both, can possibly understand. And from this exact likeness, without all doubt, arose the Fable of *Tithonus*, that living to extream old age, he

was at last turned into a Grashopper, and into it, it may be very well moralized again; For then the body of man is quite another thing than what it was in its prime, it is contracted, and becomes much less, and crumpled up together, and in the end is brought even to crawle upon the ground.

cornel. Gallus.

Contrahimur, miroque modo decrescimus ipsi,
Dimidium nostri corporis esse putes: infans,
Foetq; tripes, prorsus quadrupesq; ut parvulus
Et per sordentem flebile serpit humum.

There remaineth yet one reason more that induceth me to believe, that the parts we have been speaking of, are principally here intended, and that is taken from the word which is here the predicate, whose root סבל signifieth primarily, to carry or bear burdens, and in this sense it is mostly used. Now, the parts in man that may be called the Porters, and which bear the burdens that are carried, can be no other than the *Scapula*, and its *Acromion*, which is the part upon which the burden is pitched; and the back bone which is the part that gives the greatest strength towards the bearing of it, both which, when age hath much enfeebled a man, become unser-

Lam. 5. 7. Ezra 6. 3. Neh. 4. 10

unſerviceable as unto thoſe ends, theſe Porters do now become a porterage themſelves, and thoſe parts that were wont to bear the greateſt burdens, are now ſo great a burden themſelves, that the man ſtoops under them, and is ſcarce able to bear them.

Now, as the bones are principally here intended, ſo alſo all the other ſolid parts of the body, that are made of the ſame craſſiment of ſeed, may be here included; and if we do but here recal the Tranſlation of the LXX, we ſhall underſtand what change it is in age, that all theſe undergo; the Cartilages of the body, the Ligaments, the Membranes, the Fibres, the Veins, the Arteries, the Nerves, and Tendons, and the like, do all grow harder and drier in age, and tend more towards the nature of bones. The ſkin alſo being partly of this kind (as was before ſaid) is to be numbred hereunto, which ſo long as man remains in ſtrength is beautiful, plain, and polite; but as he declines, grows more cruſty, and dry, and callous, and conſequently falls into abundance of wrinckles.

Plurima ſunt juvenum diſcrimina, pulchrior ille,
Hoc, atque ille alio ——— (ille,
Ultima ſenum facies.

Velesius, de sacra philos. c.66.

And that learned Physician, (who in his youth had wearied himself out with the uncertainty and confusion of prophane Authors, and therefore in his age betook himself to sacred Philosophy,) that he might more powerfully assign over this Hieroglyphical expression to the sense we have here delivered, saith; the Locust ought to be understood of the Sea-Locust, which is covered over with an hard, and a crusty and rugged shell: and whosoever shall so take it, cannot but conclude, that it doth decipher the parts, we have now treated of. However, I judge the Land-Locust, or Grashopper may very well signifie the same thing; beside, it is much better known to men, than the other is, and may be extended to some parts (that ought here to be included) which the other cannot so significantly denote; For by this Clause, the Grashopper shall be a burden, we are to understand the alteration of all the more hard and solid parts of the body, usually called the spermatical; *Ductilium*, viz. *induratio, & incrustatio; & fragilium extantia, & prominentia.*

Desire

Deſire ſhall fail,
Or rather.
The Capers ſhall ſhrink.

The word האביונה hath two remarkable ſignifications, the one primary and plain, whereby it ſignifieth, *deſiderium, concupiſcentia, appetitus*; deſire, or appetite; the other, ſecondary or figurative, whereby it ſignifieth *Capparis*, Capers, or the fruit, or rather the flowers of the Caper ſhrub, or buſh. And this word is tranſlated from its firſt ſignification to this latter, becauſe of the known uſe of Capers, which is to excite the appetite: *Capparis excitat orexin, & appetitum, cibi, & veneris:* from whence it is, that ſome do not improbably derive the word from עבה, *ad luxuriam concito*; and for theſe ends, eſpecially that of the ſtomack, are they preſerved in pickle, and ſo often uſed among us for ſauce. Now, that the word in this place ought to be taken in this latter, that is, in the figurative ſignification, theſe following reaſons do induce me to believe, every one of which ſingly, ſeem to have a good perſwaſive power; but all of them joyntly, have doubtleſs a compulſive power, to any rational man to be of the ſame opinion. The firſt, is the ge-

neral ſcope, that the wiſdom of *Solomon* propoſeth to it ſelf in this whole deſcription of age, which is by way of Allegory all along. No wonder therefore if the ſame wiſdom, where there be two ſignifications of a word, ſhall rather prefer the Allegorical; the ſecond, is the particular intent of this verſe, which is to ſhew the ſenſible alterations that are made in man in old age, both in reſpect of his mind, and of the ſeveral parts of the body, and that ſymbolically, or by way of reſemblance to other things: and not at all to relate to any of the faculties; and that which doth abundantly back this reaſon, is, that the weakned faculties were deſcribed before, and particularly it was ſhewn ſufficiently, how the appetite both *ad cibum* and *Coitum* was weakned, in the laſt verſe, in thoſe words, *the voice of the grinding is low:* And therefore a learned Commentator upon this place, when he had ſaid, *Senum libido frigeſcit*, further adds, (that which might better diſtinguiſh it from what went before,) *& organa coitus diſſipantur*; which is indeed, the true purport of the words, though but in part. Again, the Contextural expreſſions are of the ſelf-ſame nature, both thoſe that follow in the Allegory, namely, the ſilver Cord, and

Cornel. à Lap.

the

the golden Bowl: and alſo thoſe that immediately precede, namely, the Graſhopper, and the Almond tree: And as the word שקד was tranſlated from its primary ſignification, which is, waking, (as was ſaid,) to that figurative, of the Almond tree; ſo alſo would it be moſt congruous to deal with this word we are now about. Again, Authority is ſufficient, yea, abundant for this way of tranſlating it: If any one pleaſe to conſult all the variety of Interpreters, he ſhall find (that which is a great rarity) the moſt and the beſt to go together, this way; and ſince *Hieron* did but give favour hereunto, I find no Tranſlatour vary hencefrom, but ſome few into Vulgar Tongues.

Laſtly, By this way of tranſlating only, there will be a direct oppoſition, and a perfect *Antitheſis* (which certainly there ought to be) betwixt this word and that which immediatly went before. The Graſhoppers and Capers are in their form and faſhion; their ſubſtance and conſiſtence, clean contrary one to another; The one, being protuberous, rough, cruſty, and hard: The other, round, ſmooth, ſpongy, and ſoft: And therefore may be very fit Emblems to repreſent the ſeveral contradiſtinct parts of the body, under the

ſame variety of conſiſtence. Wherefore, as the Graſhopper did principally repreſent the bones, and ſecondarily, all thoſe parts that proceed from the Craſſiment of the ſeed; ſo alſo here, the Capers do as aptly repreſent principally the fleſh, and ſecondarily, the other moyſt and fluid parts of the body that proceed from the more tenuous part of the ſeminary matter: and that which doth farther confirm this reaſon, is, from the *Antitheſis* that is alſo in the predicate of theſe expreſſions: For as there, the Graſhoppers are ſaid to grow big, or burdenſome; So here, the Capers are ſaid to ſhrink or decay; for ſo the word תפר ſignifieth, and is uſually tranſlated, *diſſipabitur*; *abolebitur*, *conteret*, ſhall waſt or conſume, ſhall be ſpent, or worn out; and is a Metaphor taken from interbaſtation, patching or piecing, ſewing or clapping cloſe together, making faſter or harder thoſe things, that were more dilated, ſpongy, and flouriſhing before: So that what we are to underſtand by this Sentence, the Capers ſhall ſhrink, is the alteration of all the moyſt and tender parts of the body, uſually called, the ſanguineous; *Fluidarum*, ſcil. *depravatio & minoratio: & mollium ariditas & conſumptio*; I cannot exclude hencefrom that change

that

that befalleth the bloud and natural humours of the body in the time of age: For they become low and much depauperated, they are diminiſhed, and far leſs in quantity than they were before.

Minimus gelido jam corpore ſanguis.

Nor can I exclude that change that happeneth to the fat and marrow; man in his full ſtrength is deſcribed by *Job* to be ſuch an one, *Whoſe breaſts are full of milk, and his bones moyſtned with marrow:* But when he is very old, there is ſcarce any milk, or fat, or marrow, or moyſture left in all his body; a Conſumption is determined concerning them all. But that alteration which is principally here intended, is that which befalleth thoſe parts of the body that uſually go under the name of fleſh. Now, the fleſh of the body is of three ſorts, *Parenchymous*, *Glandulous*, or *Muſculous*; The fleſh either of the bowels or entrails, or of the Glandules or kernels; or laſtly, of the Muſcles, or outward parts of the body that are the inſtruments of voluntary motion. It is without all queſtion, that the entrails of man, as the Liver, the Spleen, the Heart, the Lungs, *&c.* do receive great alteration in age, they decline Job 21. 23, 24.

cline very much from their ſoftneſs, ſponginess and porosity, and become far harder and faſter, and more Schirrous than they were before. The ſame alſo may be ſaid concerning all the natural Glandules in the body of man, thoſe that ſerve either to Excretion, to Reduction, or to Nutrition: They all of them vary much from their primitive tenderneſs and bigneſs, and ſo become more durous, and are far more conſumed than they were at firſt; and that which the Learned and moſt ingenious Author of the late Tract *De Glandulis*, doth obſerve of the *Thymus*, by the time of middle age; may be alſo obſerved of moſt of the other Glandules in the time of extream age; that is, that they will bear very little proportion either in weight or ſubſtance, to what they did at firſt, but by experience they are found to ſhrivel and ſhrink away, and be conſumed almoſt to nothing.

Dr. *Wharton*, c. 16.

But of all the parts of the body, thoſe lax and tender flakes of fleſh, that lye over, and cover the bones, and are at both ends affixed to them, which from the form of ſome of them are uſually called Muſcles, do moſt properly deſerve the name of fleſh, and are conſequently chiefly intended in this place. Theſe are in Scripture called

called the coverings of a man: *Thou haſt covered me,* ſaith *David, in my mothers womb.* And again *Job, Thou haſt covered me with skin, and with fleſh.* Now, as man declines in years, ſo do theſe coverings wax old and ſhrink, ſo that at length they become ſhorter and narrower, than that a man can comelily be wrapped up in them: So that this, together with the former Symptome, doth abundantly ſhew the great alteration and deformity that is eaſily diſcerned upon the external parts of the body, in the time of extream age. The body becomes more uncomly, cragged, and crumpled, the bones ſtare through the skin, the fleſh that ſhould cover them is waſted much away. And this condition is lively deſcribed by *Elihu*, one of the friends of *Job*; who ſpeaking of Gods dealing with men, ſometime in reference to their body, (pointing therein at *Jobs* Conſumption, which in this reſpect is exactly anſwerable to the *Maraſmus Senilis*,) ſaith, *His fleſh is conſumed away that it cannot be ſeen, and his bones that were not ſeen, ſtick out.* I would have this expreſſion be principally noted, and remembred, as being a moſt perfect Comment upon theſe two laſt mentioned Symptomes of age. For the former words, *viz. His fleſh is conſumed*

Pſa. 139. 13. Job 10. 11.

Job 33. 21.

consumed away that it cannot be seen, is the same that is said in these words, *Dissipatur Capparis:* and the latter words, *viz. The bones which were not seen, stick out,* is the same which is said in those, *Impinguatur Locusta.*

And thus much shall suffice to have spoken for the Explication of all those Symtomes that attend a man all along the time of his decrepit state.

For man goeth to his long home: and the mourners go about the streets.

These words being not at all figurative, but only a plain and easie transition from one part of the Allegory to another, namely, from those Symptomes that attend a man all along his decrepit state, unto those that do immediately forerun his Dissolution: It is beside my purpose to speak to them at all, for my intention hath been only to explain the difficult terms in the Allegory; And I would not willingly seem to any, ὡς ἀλλοτριεπίσκοπος, to play the Bishop in anothers Dioceſs, or to meddle with those matters that are peculiarized to another Coat, yet because the words are now read, I cannot but take notice of two things in them, that is, first, the term of long home; and secondly,

1 Pet. 4. 15.

condly, the mourning at the funeral.

The word עולמו which intimates unto us the ſtate of death, and is here tranſlated *Long:* hath three eminent ſignifications, either of which may be very well accepted in this place.

In the firſt place it ſignifieth, *abditum, occultum*; a ſecret and an hidden thing, and thus it is derived from the word עלם *Latitavit, abſconditum fuit*, as it is very often uſed: *If the whole Congregation of Iſrael ſin through ignorance, and the thing be hid from the eyes of the aſſembly.* And again, (not to cite many places to this purpoſe which were eaſie to do,) in the laſt Verſe of this Chapter and Book of *Eccleſiaſtes*; *For God will bring every work to judgment, with every ſecret thing*; which is from the ſame original word uſed in this fifth verſe for long home. And indeed, that home that we are all haſting to, and know not how ſoon we may recover or come at; and aged perſons are undoubtedly at the door of: is the true and proper hiding place for all living: *For they ſhall all lye down alike together in the grave, and the worms ſhall cover them. Men are hid together in the duſt, and their faces are there bound in ſecret.* Death is a ſtate of obſcurity, and the Grave

Lev. 4. 13 ſ. 2.

Job 21. 26.

40. 13.

Grave a place of ſecreſie; and therefore it is that *Job*, wiſhing for death, phraſeth it; *Oh that thou wouldeſt hide me in the Grave, that thou wouldeſt keep me in ſecret*: But beſide the bare ſignification of ſecreſie, this word doth for the moſt part carry along with it an intimation of duration or continuance; and therefore may very well be tranſlated, *Tempus cujus duratio eſt abſcondita*, an hidden duration, a time that no man knows how long; which is exactly anſwered by our Engliſh Law-phraſe, *time out of mind*; and that both *à parte, poſt*; and *à parte, ante*; time either that is paſt, or that is to come; of which no man can give an account: Both which alſo are ſignified unto us by the Latine word *Olim*, which without all queſtion came from the Hebrew word we are now ſpeaking of; as both the ſound and ſignification will abundantly make appear: Now this duration at leaſt is in the ſtate of death, that no man knows how long it will continue: No one living can give an account how long it ſhall be before, the earth ſhall diſcloſe her bloud and her bones, and ſhall no more cover her ſlain.

Job 14. 13.

Eccl. 1. 10.

The

The second signification of the word is *avum, seculum* an age, a certain long space of time, that is, commensurate with the duration of the thing, that is spoken of. A perpetuity (as I may so say) that is circumscribed; an everlastingness that lasts as long, as the thing of which it is affirmed: It is said of an *Hebrew* Servants refusing to go out free, *His Master shall bore his Ear through with an Awl, and he shall serve him for ever.* And again when *Hannah* resolved to present her son *Samuel* to the Lord, she saith, *I will bring him, that he may appear before the Lord, and there abide for ever:* which Term *for ever* is afterwards explained, when she doth bring him and present him, then she saith, *I have lent him to the Lord as long as he liveth.* Now in this sense also may the word be taken in this place, so long as Death lives (and it is the last enemy that shall be destroyed) it will keep in its possession, all that it hath, or shall surprize. The Graves must be our homes, when once we come there, as long as there is any Dust to cover us, or Heavens to surround us. *Man lieth down and riseth not, till the Heavens be no more, they shall not awake, nor be raised out of their sleep.* Untill the grave shall not onely cease from craving, but from being;

Deut. 15. 17. Exod. 21. 6.

1 Sam. 1. 22. 28.

1 Sam. 27. ult.

Job. 14. 12.

ing; and untill death be wholly ſwallowed up of victory, all thoſe Bodies that are under their power, muſt there quietly remain, as in their own unalterable habitations.

The laſt ſignification of this word is *duratio abſolute infinita, æternitas*: A compleat and abſolute perpetuity, eternity. And in this ſignification it is moſtly uſed, and muſt alwayes be interpreted when it is applyed to God, or any of his Attributes, as often it is. When *Nebuchadnezzars* underſtanding was returned to him, *he bleſſed the moſt high, and praiſed and honoured him that liveth for ever, whoſe dominion is an everlaſting dominion, and his kingdom is from generation to generation*: Again it is ſaid in *Iſaiah*, *Iſrael ſhall be ſaved in the Lord with an everlaſting ſalvation*. Now in this laſt ſenſe alſo may the ſame word in this place be ſafely taken, *in domum æternitatis ſuæ*. The ſtate we arrive at, by Death, is an everlaſting ſtate, and we ſhall never return to this life again through all eternity. And hence it is that uſually we find ſuch Epitaphs; *hanc æternam ſedem ſibi poſuit*: and

(ero ſemper.
Hæc domus æterna eſt, hic ſum ſitus, hic

Dan. 4. 37.

Iſa 45. 17.

Nor

Nor is the Scripture without its teſtimony hereunto; for *David* ſaith, *Spare me a little that I may recover ſtrength before I go hence and be no more.* Pſ. 39. 13. And *Job* doth not only ſay it, but argue upon it: *There is hope of a Tree if it be cut down, that it will ſprout again, and that the tender branch thereof will not ceaſe.* Job 14. Ver. 7. *Though the root thereof wax old in the earth, and the ſtock thereof die in the ground: Yet through the ſent of water it will bud, and bring forth boughs like a plant;* Ver. 8. Ver. 9. *But Man dieth, and waſteth away; yea Man giveth up the Ghoſt, and where is he?* Ver. 10. And that Interrogation, *If a Man die, ſhall he live again?* Ver. 14. which uſually is interpreted vehemently to affirm; ſeems on the contrary to me, moſt earneſtly to deny, and is as much as to ſay, if a Man die he ſhall never live more, no hopes of a return to this life again: And this

Firſt the manner of propoſing the queſtion ſeems chiefly to intend; for it is not *negatively* propoſed; *If a man die ſhall he not live again?* but *affirmatively, ſhall he live again?* Now Negative Interrogations do in all Languages, and in Scripture phraſe too, more properly intend affirmative Propoſitions, as where it is ſaid, *Doth not each of you, on the ſabbath day looſe his Oxe, or his Aſs, from the ſtall? and ought* Luke 13. 15, 16.

not this Woman also to be loosed? both of them most vehemently affirming: and again, another Interrogation; *How shall he*
Rom. 8. 32. *not also with him give us all things?* is as much as to say, he shall most surely do it. On the other hand, affirmative Interrogations do for the most part intend negative Propositions: *Joseph* saith, *How can I do*
Gen. 39. 9. *this great wickedness and sin against God?* and the Lord saith, *How shall I give thee up*
Hos. 11. 8. 9. *O Ephraim? how shall I deliver thee Israel? how shall I make thee as Admah? how shall I set thee as Zeboim?* all of them intending the denying of the thing: Both these Interrogations, about the same subject too, are together in one Verse of the *Psalms*, still intending their contrary Propositions; *What Man is he that liveth, and*
Psal. 89. 48. *shall not see death? shall he deliver his soul from the hand of the grave?* the first part of the Verse is negatively proposed, and therefore signifies the strong affirming of the thing, he shall surely see death: and the latter part of the verse is affirmatively proposed, and therefore signifieth the vehement negation of it; he shall in no wise deliver his soul from the hand of the Grave: The manner therefore of proposing this question being without a negative, doth seem to carry the sense, that

that if a man be dead he ſhall never live again.

Secondly the inference that is hence made confirms the ſame thing; *All the dayes of my appointed time will I wait till my change come*; doth far more naturally and powerfully proceed from the denying of life again, then from the aſſerting it: as to the diligent obſerver will eaſily appear; if a man ſhall never live again in this world, it is of moſt high concern to prepare for that change that foreruns an everlaſting ſtate. There is no returning more from death, and therefore let every one wait upon his buſineſs, and finiſh it, before that time come: *There is no work, nor deviſe, nor knowledge, nor wiſdom in the grave, whither we are going*: And ſince there is no returning thencefrom, how cogent will the argument be, for every one to wait all the dayes of his appointed time, till his change ſhall come. *If the Tree fall to the ſouth, or to the north, in the place where the Tree falls, there it ſhall be*: Eccleſ. 9, 10. And therefore it is of the greateſt concern to take care how the Tree fall. If a man at his departure out of this life fall towards happineſs, or towards miſery, in the ſame condition he falls, ſhall he remain for ever; and therefore it is a buſineſs of everlaſting concern, to await our fall.

But laſtly, that which makes it yet more clear, that this interrogation intends the negative, is the words in the latter end of this Chapter; where *Job* reſuming the ſubject, and ſummarily declaring what he had been before ſpeaking of; he ſaith plainly, Job 14. v. 20. *Thou prevaileſt for ever againſt him, and he paſſeth, thou changeſt his countenance, and ſendeſt him away.* I ſpeak not theſe things in the leaſt to enervate that moſt comfortable Chriſtian Doctrine of the *Reſurrection*; and as *Job* was very carefull in the forecited Chapter, to keep his reſerve as unto that; ſo that in the middeſt of the Chapter (that therefore it might have an aſpect over the whole) he interpoſeth a ſentence to that purpoſe; Verſ. 12. *Man lieth down and riſeth not, till the Heavens be no more.* So I would not have any one ſo far miſtake this Doctrine, as to think the Body of Man ſhall be kept in everlaſting Chaines of darkneſs: for, though it ſhall never return to this working ſtate again, yet God hath appointed a ſet time, to remember it in: Verſ. 13. at which time it ſhall, by the Word of God, ſhake off its corruption, diſhonour, and weakneſs; and by his gift ſhall be cloathed with ſpirituality, glory, and Immortality. 1 Cor. 15. 41, 42. Herein no one can erre, who knowes the Scripture, and the Power of God, as our

our Saviour intimates; The Power of God teacheth us, that God can raiſe the dead; and the Scriptures teach us that he will; and what God can, and will do, muſt certainly come to paſs: But the Doctrine of the New Teſtament gives a far clearer light hereunto, therein there is a ſufficient teſtimony given unto all Men, *in raiſing Chriſt from the dead:* For he being the firſt Fruits of them that ſleep, gives a certain demonſtration, that all the other alſo muſt follow in their order. Ἀναστάσις & ἀνάστασις are ſo neerly related to each other, that they are Preached, and Believed, they are ſlighted, and contemned together: their foundation is ſo much the ſame, that they muſt neceſſarily ſtand and fall alike. I have obſerved that thoſe late ſpreading Doctrines that have purpoſely obſcured the Hiſtory of *Chriſt* at *Jeruſalem*, have, before they have been aware, wholly loſt the Doctrine of the Reſurrection: I ſhall not farther add hereunto; it may ſeem that I have too much digreſſed already; but I hope no farther, then for the neceſſary clearing of the words *long home*, and the reſerving entire, that unqueſtionable Article of our Faith, *the Reſurrection of the Body*.

Mat. 22. v. 29.

1 Cor. 15. 23.

Act. 17. 18.

The other remarkable thing is the Mourning at the Funeral; I ſhall not ſpend

time in diſcourſing what kind of Mourners theſe are; whether Children, Relations, Friends, Neighbours, hired Perſons, theſe, or any, or all of theſe; it is enough that there is a Publick Mourning expreſſed, at ſuch a Funeral as this; I ſay *it is enough*, and methinks I hear ſome others ſay, *it is too much*; for if it be ſo, as hath been related, if Age be ſo miſerable and comfortleſs a condition as hath been deſcribed; happy ſure are they, that are gon, or going, off from it: If all manner of evills do attend thoſe that are extreamly aged, and nothing that good or pleaſurable is; when they change this State, for that which is perfectly happy (as we ought to believe concerning all our Chriſtian Friends departed) in ſtead of Mourning, why ſhould there not be Rejoycing? in ſtead of hanging down the Head and Weeping, Why ſhould there not be lifting up the Head and Triumphing? at ſo great a bettering their condition, as ſuch a Change muſt neceſſarily produce: To this I muſt needs anſwer, That, if we truly underſtood our ſelves, and were throughly poſſeſſed of what we do profeſs, in reſpect of the party Deceaſed, there were no cauſe of Mourning at all, but rather of Rejoycing; And this not onely in reſpect of Perſons decrepit with

Age,

Age, but of any other, in whatſoever flouriſhing condition of this Life; for the change would then be, but from a leſs miſerable eſtate, to that which is moſt compleatly bleſſed: for Man, at his beſt eſtate, as he is altogether Vanity, ſo is he very miſerable, and encompaſſed and perplexed with abundance of evil, which his laſt happy change gives him a deliverance from for ever. *The righteous are taken away from the evil to come*: and the ſtate they are taken to, is infinitely and unexpreſſibly happy. Moſt noble and excellent was that ſaying upon a Moral account; The ſelfſame journey that thou haſt taken from no being, unto being, and from a perexiſtent being, to this mortal life; thou mayeſt again take (with the ſame aſſurance of preferment) from this Life, by Death; to a Life that has Immortality in it: but the Believer in *Chriſt Jeſus* onely, hath a true proſpect of the advantages of his great Change: the Life of Chriſt, and the gain of death, are known and apprehended together: *For me to live is Chriſt, and to die is gain.* He that hath lived unto the Lord knowes fullwell; *That when his earthly houſe of this Tabernacle ſhall be diſſolved, he hath a building of God, an Houſe not made with hands, eternal in the Heavens.* He

Iſa. 57. 1

Phil. 1. 21.

2 Cor. 5. 1.

assuredly knowes from the prelibation of Eternal Life, which he hath had in this World, that then all tears shall be wiped away from his eyes, & he shall never know one evil more, and that he shall be put into immediate possession of all those good things, that he either Prayed, or hoped for in this life, into a perfect state of Bliss, infinite, at least, for the duration: And therefore upon this account, there will be very little cause of Lamentation. And, whosoever he is, that Mournes meerly upon the account of the Party deceased, he doth necessarily redargue himself of unbelief, and plainly shew, that there is an hæsitation in his Mind, concerning one of these two things; whether Heaven be such a place as hath been described unto us in the Book of God, or whether his Friend be assuredly gone to that place. So that Funeral Mournings are, as Divines say of Funeral Sermons, more in respect of the Living then of the Dead. To go unlamented is no misery to the Dead; but a shame to the Living. There doth indeed lie a Duty upon all that are left behind, to bewail their own loss of their Godly Friend; Natural Affection, and the Fleshly part of Man ought something to be indulged in this respect; but the loss of a great and a

long

long Example of Piety, whoſe preſence hath been a continued bleſſing, both to perſons and places; ought moſt ſeriouſly and ſadly to affect the inward man; and therefore they are ſharply reproved by the Prophet, who are negligent in this duty; *The righteous periſheth, and no man layeth it to heart; the merciful men are taken away, none conſidering*, &c. And it is to be obſerved, that the Saints of God, though never ſo old, and brought never ſo low, through the miſeries attending them; when they changed this life for a better, were ſtill buried with great lamentation. *Abel-mizraim* was a place never to be forgot, either by the *Egyptians*, or the *Canaanites*; and not *Jacob* only, but *Moſes*, and *Aaron*, and *Samuel* were buried by the aſſembly of the people of *Iſrael*, and very great publick mournings was made for them all.

Iſa. 57. 1.

Gen. 50. 11. 1 Sam. 25. 1. Num. 20. 29. Deut. 34. 8.

Verſe 6.

Verſe 6.

Or ever the ſilver Cord be looſed, or the golden Bowl be broken, or the Pitcher be broken at the fountain, or the Wheel broken at the Ciſtern.

THus far the King hath been treating of all thoſe Symptomes that accompany a man all along his decrepit ſtate, which may appear upon him, while yet he may have ſome ſpace given him, to remain in the Land of the living: Theſe that follow in this verſe are ſuch that immediately forerun his diſſolution; which when they once appear, there remains nothing, but a preſent preparation for his Funeral. And they may ſerve as indications, not only in this weak and ſpent condition of age; but in whatſoever other condition of mans life, by the violence of a diſeaſe, they are joyntly found; they give a moſt certain Prognoſtick of approaching death. In the Explication whereof there is very much variety of opinions; ſo that it would be exceeding tedious and troubleſome to follow them all; but I ſhall ſpare all that pains, and take notice of none of them, but

but what I judge to be neareſt the intention of the Wiſe man, foraſmuch as moſt of the other, carry their own refutations in their faces: and if I may be directed to find out any thing of truth contained in them, that alſo will bear its own evidence along with it, and may ſerve for eviction of whatſoever is contrary thereunto. Foraſmuch as *rectum eſt index, ſui, & obliqui.* Death, which is the fruit of old age, and the unavoidable receptacle of all living: is deſcried to be juſt at the door, by thoſe Symptomes that belong to the inſtruments, either of the animal faculty, or of the vitall; (as for thoſe that belong unto the Natural, they have very little or no certainty in this Caſe.) Thoſe that belong to the animal, have reference unto the brain, and the parts ariſing from it; either as they are continued without the *Cranium, Or ever the ſilver Cord be looſed*; or elſe as they are contained within the *Cranium, The golden Bowl be broken.* Thoſe Symptomes that belong to the vital faculty, have reference unto the heart, and the parts ariſing from it; as they ſerve, either for importation of the bloud and ſpirits; *The Pitcher broken at the Fountain*; or for exportation of the ſame; *The Wheel broken at the Ciſtern.*

Now

Now of all theſe in their Order.

Or ever the ſilver Cord be looſed.

The firſt thing that we muſt here make enquiry into, is what we are to underſtand by the Cord; and we muſt be ſure here alſo as in all other parts of the deſcription, to keep within compaſs of the Allegory; and find out thoſe parts of a man that are hereby repreſented. For he it is, that hath hitherto been deſcribed unto us, as an old houſe greatly decayed and ruinated, but yet ſtanding, by all the foregoing Symptomes; but now as an houſe falling down which muſt no longer remain, by this Symtome, and thoſe three which immediately follow in this verſe. And therefore theſe
Cajetan. may very well be called, *quatuor mortis Concomitantia*; the four attendants upon dying man.

Hoſ. 11.4. The Scripture maketh mention of *the Cords of a man*, which although they are there to be taken in a Moral ſenſe, and ſo excentricall to what we are now about, yet they are a Metaphor taken from the natural cords of a man, and may give ſome light thereunto: for as love in all bodies politick (and conſequently myſtical) doth both draw and unite; ſo in all bodies natural, the ſelf-ſame offices are performed by

by thoſe parts of which we are about to ſpeak; for we muſt know, that all the ſeveral parts of man, are not kept, and bound faſt together by ſpels, nor are his ſeveral members moved ſeveral waies, as it were by Magick Art, the ſoul of man doth not by a bare *jubeo*, cauſe the repreſentation of outward objects, or the variation of the poſition of the ſeveral limbs, without the help of inſtruments, but by the apt frame of the whole body, and the pliableneſs of the ſeveral parts, and the convenient poſition of all the Cords and Pulleys towards their appointed ends, we perceive outward objects, and move our ſelves at pleaſure ſo; as that an artificial man, could there be in it, the ſame organs, and the ſame diſpoſition of them all, together with an active power to put them in execution, would have a like ſenſe and motion with our ſelves. The *Chaldee* Paraphraſe doth interpret this Cord to the *Ligula linguæ*, the ſtring of the tongue; others interpret it to the *Spinalis medulla*, the marrow of the back; others, to the Nerves; others, to the outward Tunicle of the Nerves and marrow, which they have proper to themſelves, for their own ſtrength, beſide the other two which they receive from the brain. All theſe have offered

offered exceeding well, and without doubt have hit the truth, and being put together may ſeem to make the whole of what is here intended, which is the whole inſtrument of ſenſe and motion, after it hath proceeded out of the Scull, and as it is diſtributed throughout the body; with all its Coats and Tunicles, with all its diviſions and ſeparations. I mean, not only the ſpinal marrow is here to be underſtood, (as principally it ought to be,) but all the Nerves ariſing thence from, (both thoſe ſeven pair, be they more or leſs, that proceed from it, before it hath attained any of the ſpines; and thoſe thirty pair, that proceed from the ſeveral *Vertebræ* of the neck, the back, the loyns, and the *Os Sacrum*,) and alſo the Filaments, and Fibers, and Tendons, that proceed from all thoſe Nerves. The Nerves and Fibers muſt in no wiſe be here left out, foraſmuch as they do more apparently both unite and draw, than any other of the parts whatſoever. Job 10. 11. *Job* ſaith, *Thou haſt fenced me with bones and with ſinews.* I compare theſe fences of a man, to thoſe of an hedge; where the bones anſwer to the ſtakes in the hedge, making the ſubſtantial trunk of the body, unto which all the other parts are to be faſtned: and the Sinews

Sinews or Nerves to the binders of the hedge; which faſten and unite all the other parts to that trunke; and as for motion or drawing, it is well known that there is none in all the body performed, (whether voluntary or natural,) but by the influence of the animal ſpirits upon the Nerves and Fibers, and their contraction thereupon, in thoſe ſeveral parts, into which they are inſerted. Now, although all the ſeveral and innumerable Filaments are to be accounted hereunto, yet they are moſt aptly expreſſed in the ſingular number, by *funiculus argenteus*, the ſilver Cord, becauſe they are but the continuation of the ſame thing: The Fibers being nothing elſe but the Nerves divided and diſperſed, and the Nerves nothing elſe but the marrow in like manner ſeparated, as ſo many arms and branches of the ſame tree; they are all one in their original, the brain; they are all one in their continuation for a long time, in the ſpine; they are all one in their colour, white; they are all one in their form, long and round; they are all one in their Coats having each the ſame three Tunicles, they are all one in their uſe, to convey the animal ſpirits, and all this in an apt reſemblance to a Cord; to which alſo they are not unlike in their diviſion, for then, they

are

are but as ſo many wreaths, or wattles of the ſame Cord; and that which is moſt obſervable to our preſent purpoſe, is that by how much the more diſtant they are from their original, by ſo much the thinner, and finer, the harder, and more compact do they grow, like the ſeveral ſmaller, and better twiſted ends of the ſame Cord.

It is called the ſilver Cord, firſt from its colour, for it appears to the eye, of a white, ſhining, reſplendent, beauty, bright as ſilver; and thus it is even when it is taken out of the body, after it is dead; but how much more admirable and glorious muſt it needs be, while it remains in the body yet living, and actuated with abundance of moſt refined ſpirits, which continually aſcend and deſcend thereupon.

Kallobius An Ancient and an admirable Anatomiſt, upon conſideration of the great luſtre and perſpicuity of it, compares it to the Cryſtalline humour of the eye, and farther affirms, that he never ſaw any thing in all his life, more beautiful than thoſe two things.

Secondly, It may be called the ſilver Cord, from its place in which it is ſeated in the body: it is placed very deep, ſecret, and ſecure; *Job* ſaith, *Surely there is a vein*

Job 28. 1.

for

for the ſilver; that is, there is an intricate, hidden, and myſterious Cavity in the earth, in which this Lunar Mineral, doth more ſecurely paſs its branches; juſt thus the Cord of our body, as ſoon as ever it hath left its original, it is paſſed into the moſt inward, and ſecret Cavity of the Spine, which by reaſon of that admiration and reverence the Ancients had for it, they called, ἱερὰν φλέβα, the holy Pipe; and when in ſeveral places it paſſeth thence-from, it is conveyed all along with wonderful artifice, both for ſecreſie and ſecurity, which is continued to the moſt minute Filaments, for throughout the whole body, it lieth lower, and deeper, and ſafer, than the Veins, or Arteries, or any other common Conveyers in the body of man.

Laſtly, and chiefly, It is called the ſilver Cord, becauſe of its excellency: For as Silver above all other Minerals whatſoever (ſave only that moſt abſolute and perfect one of Gold,) is, and ought to be moſt valued and eſteemed; ſo is, and ought, this part we are now ſpeaking of, next unto that moſt abſolute and perfect part, the brain, which in the very next following Symptome is aſſimulated unto Gold. The ingenious Chymiſts take

pleaſure to liken the ſeveral Metals they find in the bowels of the earth, to the heavenly Luminaries, who after they have compared the moſt perfect, aptly to the Sun; they in the next place, liken this of Silver as aptly to the Moon, and therefore decipher it alſo by the ſelf-ſame Character; ſhewing us hereby, that as the Moon in Heaven, is far more glorious and excellent, than all other Cœleſtial Bodies whatſoever, (the Sun alone excepted,) ſo Silver in the earth, above all Terreſtrial Bodies whatſoever (Gold alone excepted) hath the ſame preheminence.

Micat inter omnes,
——— Velut inter ignes,
Luna minores.

And this dignity hath the Spinal Marrow with all its branches above all other parts of the body except the brain; it hath been in ſuch eſteem among Philoſophers, that the beſt of them hath acknowledged it the foundation of life; and the great Maſter of Phyſicians hath dignified it with the name of ἀιών, thereby clearly intimating, that if vitality be not chiefly therein placed, yet the higheſt and moſt noble operations thereof, are performed there-

Plato in Timæo. *Hippoc.*

thereupon. And such an exact likeness there is between the Nerves and Silver, that they do by a mutual and reciprocal Metaphor, suitably express one another, in the two several Worlds.

For as the Nerves or Sinews are here said to be the Silver of the Microcosme, or little World, so is Silver as aptly said to be the Sinews of the Macrocosme, or greater World. There being nothing in the whole World that is vigorously carried on among Men, but by the help thereof: Silver is the Sinewes of War and of Peace, of Merchandize and of Tillage, nay I may farther add, of Learning, and of vertue too.

Quis enim virtutem amplectitur ipsam
Præmia si tollas.

Now, as all the Works of the greater World soon come to nought, if the influences of the Sinewes thereof be intercepted; so do all those of the Lesser World, if the Silver thereof perish and decay; and therefore the loosning of the Silver Cord is here given as an undoubted signe of instant Dissolution. For, as it was said of the Tabernacle, *That it was spoiled, and neer its utter ruine, when the Cords thereof were broken*; Jer. 10. 20. Isa. 33. 20

ken; so may it also be said of this earthly Tabernacle of our Bodies, when we shall be unstrung, and the Cords of our Bodies broken asunder; we must then expect suddenly to be dissolved: The Word here is variously translated, *rumpatur*, *elongetur*, *contrahatur*, *revertatur*, *dissolvatur*; which variety may give very great light unto the several causes of the symptome here intended: but because such a narrow scrutiny may make a digression from what is here intended, I shall for the present pass it by, and onely take notice of the symptome it self which is here aimed at; and, that the Latine word *dissolvatur*, and the English *loosned*, do directly point at, namely the solution of the Nerves or Marrow, called in Latine (from the Greeks and their Radix λύω, *solvo*) *paralysis*, and in English the *Palsy*: Sometime this solution hapneth only to one part of the Silver Cord, which causeth *paralysis particularis*, and then the enlivening influence of the animal spirits is hindered onely from those parts of the Body, to which that doth immediately tend, and so those parts become wholly deprived both of sense and motion; Death hath already taken possession of a Leg, or an Arm, or the half of that Man, that is so far paralytick, hardly or never more to be dispossessed;

diſpoſſeſſed; and therefore in our language it is well ſtiled the Dead Palſy. Sometime it hapneth to the head of the ſpinal Marrow, and ſo hindreth the influence of the ſpirits upon the whole Silver Cord, and conſequently takes away all ſenſe and motion from all the ſubjected parts; and this cauſeth *Paralyſis univerſalis*, which at all times, and upon all occaſions, gives a very probable Prognoſtick; but in the decrepit Age of Man, a moſt certain and infallible one, of immediate Death.

Or the Golden Bowl be broken.

The Symptome laſt treated of, had reference to the *rivulets* of animality; this we are now ſpeaking of, relates to the *fountain:* For we muſt know that the Soul of Man, the Queen Regent of all his operations, makes the Head the Royal Palace of her reſidence, from whence ſhe gives forth all her Precepts, Edicts, and Commands, for the regulating and actuating all the ſubjected parts of the Body. Now the parts of the Head are of two ſorts, either the *containing*, or the *contained* parts thereof: The laſt of theſe, namely the encompaſſed, or contained parts, are the *cerebrum*, the *cerebellum*, and the *medulla*, with all thoſe ſeveral ſmaller parts, which

curious obſervers have found out, to belong to any of them, which I ſhall not ſo much as mention, becauſe they are not ſo directly pointed at in this place: And I do here, as I have done all along, induſtriouſly avoid all things, eſpecially all termes of Art, or ſecond intentions, that do not immediately conduce to the underſtanding of the ſymptome under hand: but we muſt not ſo exclude theſe parts as to judge them not all concerned in this expreſſion; for upon the breaking of the Golden Bowl, the brain it ſelf, with all the contained parts appertaining thereunto, doth immediately ceaſe, from all its operations: And if we ſhall take the Original word in its plain ſignification, and as it is often uſed in Scripture too; for *fons*, or *ſcaturigo*, a Fountain, or Spring; it would ſeem moſt properly and primarily to intend this moſt noble part, the firſt ſpring of animality, the original fountain of all ſenſe and motion.

Cant 4. 12.
Judg. 1. 15.

But becauſe I find the word otherwiſe tranſlated, and that upon very good grounds, by all that have undertaken that charge, I ſhall in no wiſe diſſent from them; for indeed the Myſtical and Metaphorical ſenſe of Words ought ſtill to be preferred all along the Allegory: And I would not by any meanes break a firm, well ſet, and

and a lasting Hedge, if there be any the least reason for the standing of it. The root from which this word is derived is גלל *volvit, circumvolvit, complicavit, circumduxit:* Sometime it is translated to rowl, or to rowl together, sometimes to rowl away, or to rowl back; sometime to rowl over, wrap up, or encompass; so that the word in the Text is sometime translated *lecythus*, a Pot, or Bowl, to hold any liquid substance in: sometime *lenticula*, a Chrismatory, or Cruet, or Vessel to contain Oyl; sometime *orbis*, a Sphærical Body encompassing others: The vulgar Latine removes the Metaphor once again, and brings it home to its own door; *vitta aurea*, the Golden Headband, for *vitta* signifieth a Veil, a Coyfe, a Garland, or whatsoever else may circle, or encompass the head: the LXX. hath it ἀνθήμιον, the repository of the Braines; by all these we understand, that Interpreters do *uno ore*, with full consent render the Word to the involving, circumscribing, encompassing, containing parts. Zach. 4. 2, 3. 1 King 7. 7. 4.

Which also are of two sorts, either the external containing parts of the head; or the internal: The external (beside those common Vestments that appertain to other parts of the body also, as

the *Cuticula*, *Cutis*, &c. which cannot be here underſtood) are only two, the *Pericranium*, and the *Cranium* it ſelf; now although theſe are not chiefly intended in this place, yet ſurely they will put in for a ſhare of this Elogie; for as much as theſe do environ, defend, and ſuſpend all the inward parts, and do conſequently exceedingly conduce towards all animal operations. And the *Chaldee* Paraphraſe doth directly interpret this word hereunto, when it ſaith, *Et ne ſit Confractus vertex capitis tui.* The Crown of thy head be not broken: beſide the Hebrew word for the ſcull (as it is uſed in that place with many others, where it is ſaid, when they went to bury her, they found no more of her then
2 King. 9. 30. the Scull, and the Feet, and the Palmes of her Hands) is very neer a kin to the word
Judg. 9. 53. here in the Text; they lie both together in a belly, and are derived from the ſame ſtock. And that famous word which is a medly of the Oriental Languages, being partly *Syriac*, partly *Chaldee*, and partly *Hebrew*, is alſo neerly related hereunto; I
Mat. 27. 33. mean the word *Golgotha*, that is to ſay the place of a Scull.

The internal containing parts are alſo two, thoſe two Membranes, namely a thicker and an harder; a thinner and a finer,

ner, that do yet more immediately encompass the brain, which to the *Grecians* are known by the name of μηνιγξις, to the Latines by the name of *Matres*, which title they took from the *Arabians*, intimating thereby unto us, not onely that they do give a being to all the other Membranes of the body, as unto their own natural offspring, but chiefly, and that which is most to our present purpose, that they do *Maternâ curâ cerebro prospicere*, With a Motherly care and tenderness over-see and over-rule all the actions of the brain: but yet more particularly, the most inward of these two, that doth by immediate contract encircle the very substance of the brain, doth seem to me to be καὶ ἐξοχὴν, by way of eminence, the golden bowl here intended. This is that part which deeply insinuates it self into all the anfractuous passages of the brain; and, being firmly annexed thereunto, keeps every part thereof in its proper place, and due texture; so that whatsoever is performed within the whole compass of the brain, whether the making of the animal spirits, their exercise therein, or their distribution thencefrom, is done principally by the help of this Membrane: Therefore the Ancients from that reverence they had for it, have justly honoured *Spigelius.*

honoured it with the name of *Pia mater*. And if we do but throughly conſider the innumerable branches of the veines, but eſpecially of the Arteries that are hereinto inſerted, and their ſeveral wonderful interchaſings and intermixtures, and inſertions, not onely one into another, but even among themſelves (which is not found in any other part of the body) we ſhall ſurely be induced to believe, that the greateſt depuration and defæcation, and conſequently the higheſt exaltation of the blood and vital ſpirits, is performed herein. And though it pleaſeth the moſt worthy, and moſt learned Author of the Anatomy of the Brain, to give the honour of making the animal ſpirits, to the *Subſtantia Corticalis Cerebri*; yet if you well weigh the Doctrine there delivered, you will find it clearly evinced, that the greater work is done before; And that the *Subſtantia Corticalis* doth but Midwife that into the World, which the *Pia Mater* conceives in its own bowels.

D. *Willis.*

Portio ſanguinis ſubtilior (nempe talis facta in vaſis hujus Membranæ) hic (nempe in ſubſtantia Corticali) rude donata, in ſpiritus animales faceſsit. Now whether the purification and ſpiritualization; or the manu-miſsion or liberation, be the moſt noble

noble work, I think it no hard matter to determine.

It is called the *Golden* Bowl, for the selfsame reasons for which the other was called the Silver Cord. First, In respect of the Colour, not only because that most precious, and deep coloured liquor of life, is abundantly contained in the Vessels of this Membrane, but chiefly because the Membrane it self is somewhat of a flavous Colour, and tends more, towards that of Gold, than any other part whatsoever. Again, as *there is a place for Gold where they find it,* so there is an hidden, secret, and well defended place, where this precious part hath its natural residence; much industry must be used for the finding out,& yet much more,for the following of it,and tracing it, into all those secret Caverns, into which it doth most mysteriously diffuse its branches; but chiefly it is so called from its excellency, and its universal use. The instrument that doth depurate the best of bloud, and defæcate and exalt the vital spirits, and so prepare them for animality; can be likened in this lower world, to nothing, but that most absolute, and perfect, that best concocted and most exalted Mineral of Gold. When the Lord God had made the whole Creation, he

he in the laſt place makes him, for whom all the reſt were made, *And he took man and put him in the Garden of Eden, to dreſs it, and to keep it:* This place, of all the earth, was the meeteſt receptacle for ſo noble an Inhabitant, *for it had in it a River, which was divided into four heads, The name of the firſt is Piſon, which encompaſſeth the whole Land of Havilah, where there is Gold*; and all the other are there reckoned up by their names: when the Lord God had made this noble Inhabitant of the duſt of the earth, he in like manner in the laſt place breathed into him that more noble part of him, for which all the reſt were made; And the ſoul of man, which is to rule and guide him, hath he placed in this moſt convenient ſeat, which is watered by a River, that is parted, and becomes four heads, which are all known by name, where alſo there is Gold. *Arteriarum quadriga ad quatuor diſtinctas* τὰ ἐγκεφάλα, *plagas evehitur*; the two Carotidal, and the two Vertebral Arteries are this golden quaternion, whoſe ſtreams make glad that City, wherein the breath of God hath its principal abode. There is yet another thing, wherein this part we are now treating of, and Gold, have a very great reſemblance, and that is in

Gen. 2. 10, 11.

D. Willis, Anatom cerebri, Cap. 10.

in the ductility of them both: Gold of all Metals is the moſt ductile, and may be drawn out at the greateſt length; this only makes good that Maxime in Philoſophy: *Quantitativum eſt diviſibile in ſemper diviſibilia*; No man can draw Gold ſo thin, but a better Artiſt, can yet make it thinner, it is the nature of this Solar Mineral to be endleſs in purity; how pure fine the *Pia mater Cerebri* is, none can expreſs, and none but the diligent obſerver of it, (who hath often endeavoured its ſeparation from the parts to which it is annexed,) can poſſibly underſtand. This, as ſo much leaf-gold, drawn out to a very great thinneſs, doth ſecurely, tenderly, and univerſally wrap up, all thoſe little hills and valleys, thoſe convex or concavous parts, that are within the compaſs of its own Circumference.

This golden Bowl, ſo long as man remains in his ſtrength, is firmly knit unto it ſelf in all its parts, but in the extremity of extream old age, when he is juſt giving up the Ghoſt, it can no longer continue its continuity; but by reaſon either of its natural drineſs, ſhriveling into it ſelf, or preternatural moyſture, imbibing excrementitious humours, till it is over-full, it often ſnaps aſunder, and ſo recurs into it ſelf, as

the

the word properly ſignifieth; from whence the brain muſt neceſſarily ſubſide, and all the parts ſerving in any wiſe to animality, muſt be ſuddenly and irrecoverably ſmitten, and ceaſe from their ſeveral uſes; and moreover, immediately hereupon followeth a change of the whole Countenance, the Noſe appears very ſharp, the eyes ſink in the head, the Temples are pinched in, the ears become cold and contracted, and the Fibers thereof inverted, the skin about the forehead hard, intenſe, and dry, and the colour of the whole face livid and black, and in all things perfectly repreſenting, that *ultimum vale*, known among Phyſicians by the name of *Facies Hippocratica*, and ſo conſequently the man doth immediately dye Apoplectical; according to that of *Job*, *Thou changeſt his Countenance*, (and what followeth immediately thereupon,) *Thou ſendeſt him away*. So that the Symptome hereby intended, is, *Repentina omnium operationum Cerebri; motus, viz. ſenſus, & aliarum functionum animalium, tam principalium, quam minus principalium abolitio: cum facie Hippocratica.*

It cannot but here upon this occaſion be remembred, that an Apoplex was mentioned before, in the Explication of the ſecond

ſecond verſe, and that as a diſeaſe of old age, which might ſurprize a man, and yet not immediately kill him, and of which there might poſſibly be a removal, at leaſt for a ſeaſon, that there might ſome ſpace be given him to recover a little ſtrength, before he go hence and be no more ſeen; how therefore comes it to paſs, that it is here accounted as one of the immediate Harbingers of death?

For anſwer hereunto, we muſt know, that an Apoplex falls under a double conſideration; either as it is a diſeaſe, or as it is a Symptome. In the firſt conſideration, it is *Morbus Conformationis reſpectu meatuum*; when by reaſon of ſome preternatural matter, in, or about the Veſſels, there becomes an obſtruction, conſtipation, or compreſſion of them, ſo that either the vital Spirits cannot be received, or the animal ſpirits cannot be exerciſed or diſtributed as they ought to be. This matter may ſometime poſſibly be diſcuſſed, or carried off for a ſeaſon, or change its ſeat, and ſo the Apoplex degenerate into the Palſie; however it is not an infallible ſign of inſtant departure, and under this Conſideration it was handled in the ſecond verſe. But in the ſecond Conſideration it is *Symptoma morbi, nempe ſoluta unitatis*, when

when by reaſon of the breaking of the Golden Bowl, and ſhrinking up into it ſelf, there immediately follows a Coaleſcenſe of all the Veſſels thereof, and a Subſidence of the brain it ſelf, and conſequently, a total abolition of all the actions of the animal Faculty, from whence there is not ſo much as the leaſt hopes of recovery, and under this Conſideration it is handled in this place. Or it may be, the diſtinction of the learned *Nymmanus*, may be more ſatisfactory to ſome in anſwer to this Objection.

Nymma. de Apopl. cap. 21.

Apoplexia eſt vel vera vel notha. A true Apoplex is when the *meatus* and open paſſages of the brain are ſhut up and obſtructed, and ſo the Communication of the ſpirits is intercepted, the ſubſtance of the brain, and of all the parts appertaining thereunto, remaining otherwiſe in good plight, as they ought to be, in their due place, with their wonted firmneſs of Compoſition. And this is like unto an houſe, whoſe entry or common paſſages are wholly filled up with rubbiſh, ſo that it becomes altogether uſeleſs, and this is the diſeaſe of old age before-mentioned. But *a baſtard Apoplex* is a far more dreadful thing, when the tone of the brain, and of all the parts within the compaſs of the

Pia

Pia mater, is wholly relaxed and deſtroyed, and by conſequence only thereupon, all animal functions do in a moment ceaſe, in the manner of the true Apoplex, but yet with far more terrible and amazing Symptomes, the pulſe and reſpiration alſo being wholly taken away, and the Countenance changed to that gaſtly aſpect before mentioned; which is an infallible ſign of the duſt immediately returning to the earth as it was, without any the leaſt ſtop in its courſe; λύσις ἀποπληξίας ἰσχυρὰ μὲν ἀθάνατον. Hippo. l. 2. Apho. 42. And this is like that houſe wherein the Philiſtines were gathered together to ſee *Sampſon* make ſport, which came tumbling down, when the two foundation Pillars thereof were violently torn from their place; *Ut Collapſa ruit domus, ſubductâ columnis*; and this is the certain Symptome of death, treated on in this Verſe. And thus much ſhall ſuffice to have ſpoken for the Explication of thoſe Symptomes of death, that belong to the inſtruments of the *animal* Faculty, thoſe two that remain belong to the *Vital*.

Or the Pitcher be broken at the Fountain.

For the right underſtanding of this Sentence, and that which follows, which doth depend hereon, both of them belonging

longing to the vital Faculty, I must crave leave to premise something concerning the life of man, wherein it consists; and what those parts are, that do principally conduce to the production and preservation of it; for otherwise it is impossible to understand these Symptomes. For as the Propheſies of *Daniel*, and most others of the latter times, *are closed up and sealed till the time of the end*, when their known accomplishments shall demonstrate the truths contained in them: Just thus hath it hapned to the great mysterious truths contained in these two last expressions; forasmuch as the frame, action, and use of the heart, together with the true motion of the bloud in mans body, hath lain hid from the time of *Solomon* throughout all generations, unto this last wherein we now live; the words of this Allegory that contain the sum of that Doctrine, have all this while been an undiscoverable mystery, *as a book sealed up, that none could read or understand.* And as all those who have endeavoured to reveal the Revelations, that must remain unrevealed till the appointed time of their revelation; have by all their industry only declared their own weakness and insufficiency for such a work; And describing at the best rate they could the mystery of

Dan. 12. 9.

Babylon,

Babylon, by their darkneſs and confuſion, have only evinced that they themſelves were a part thereof; even ſo all thoſe that have undertaken the explication of what we are now about, before the Doctrine of Circulation was received among Men, and gave light to the World; have, with their utmoſt endeavours, only declared their own inability, and have left theſe two Ænigmatical ſymptomes far more intricate then they found them; And of all thoſe ancient Commentators and Criticks that I have ſeen upon the place (which has not been a few) I never had the leaſt content in any, but one; and that is he, who after he had ſet down the four ſymptomes in this laſt verſe, he ſubjoynes as his comment theſe words, *Hæc quatuor ego non intelligo.* Moſt ingenious *Caſtalio*, had all Interpreters been ſo plain and honeſt, I perſwade my ſelf we had had leſſer volumes, and yet far better underſtanding of the ſenſe of Scripture, then now we have.

Now, in order to the end propoſed, we muſt know in the firſt place, that which the Scripture doth far above all other Writings moſt clearly declare, and that is, that the Life of a Man conſiſts in his Blood. For *it is the Life, of all Fleſh, the blood of it is for the life thereof; therefore I ſaid unto* Lev. 17. 11. 14.

the children of Israel, ye shall eat the blood of no manner of flesh, for the life of all flesh is in the blood thereof. And this most noble Liquor of Life hath a primary seat or fountain, where it is principally made, and from whence it is dispensed throughout the whole Body; and this is none other then the *Heart*; for *out of it are the issues of life*, is a truth not onely Moral and Spiritual, but Natural also. This part continually issueth forth abundance of blood, wherein is the life, to all the parts that are to be quickned thereby. Hence those Medicines that are of a quickning and enlivening vertue, are not unfitly called *Cordialls*, because they help the heart in its work, and do that by art, unto which the heart is by nature appointed: And surely between them there is a very great resemblance, which makes the Wise Man say, *A Merry Heart doth good like a Medicine.* This wonderfull part of Man hath abundance of the wisdome of the Creatour shewed in its formation, in so much that none is able fully to comprehend it, for *it is exceeding deep.*

Prov. 4. 23.

Prov. 17. 22.

Psal. 64. 6.

And that which is said of the Kings heart, though in another sense, may as truly be said of Mans heart in general, *The heart of Man is unsearchable.* Yet thus much cannot

Prov. 25. 3.

cannot but be obſerved by all thoſe that take pleaſure in ſearching out this great work of God, that it is the fountain of life, the firſt living, and the laſt dying part of Man, and that it doth communicate of its life and vigour to all the other parts of the Body, though at the extreameſt diſtance; which live or die, according as the beames and influences of this glorious Sun of the Body, are communicated unto, or intercepted from them. It is ſaid of *Nabal*, *his heart dyed within him, and immediately he became as a ſtone*; If the heart give not forth its vivifying vertue, the fleſh doth immediately fail; And there is no fear of the latter, if there be a continuation of the former, for *a ſound heart is the life of the fleſh*. *My ſon give me thy heart*, ſaith *Solomon*, intimating that that was vertually a gift of the whole. The ſoveraignty and principallity of the Heart above all the other members of the body, might be abundantly confirmed from Scripture, but what hath been ſaid may ſuffice: Yet there is one place relating more particularly to the action and uſe of the heart, that I would eſpecially note; and that is in our Engliſh Bookes, *My heart is inditing a good matter*: But here, as in many other places the Tranſlation comes very ſhort of the Original,

1 Sam. 25. 37.

Prov. 14. 13.

Prov. 23. 26.

Pſal. 45. 1.

ginal, and so the whole strength of the Metaphor is lost. רחש, the word is not elsewhere used in the Bible, and therefore in this place greatly to be weighed, it hath two significations, which joyned together, make up the whole work of the heart.

The first is *fervere, ebullire, preparare cibos*; the other is *cum impetu protrudere, langè eructare sive pulsare*; the heart gives heat, and motion, and life unto that which is to be our nourishment; and after that it doth with a certain force and vehemency cast it forth, and pulse it to all, even the extreamest parts, that are thereby to be enlivened. And this in the Letter not having been understood by Interpreters, makes them come farr short also in the Mystery; which is that the Doctrine of the Kingdom of Christ (for that is the good thing that his heart is here inditing) having not as yet had its full measure of strength and life in the World, and that which it formerly had, by reason of the revolution of time, and circulation of Ages, being much weakned and enfeebled, is now again in *Davids* heart by the Spirit of the living God, imprægnated with new vigour, and thencefrom with great earnestnes pulsed forth to the Generations to come, even to the end, to sustain and support them,

and

and to quicken them all to their duty, and to a longing expectation of the Glorious Kingdom of their Lord. But to return to the Heart with the Blood: We muſt farther know for the explication of theſe ſymptomes, that there are within the body of the heart, two firmly diſtinct cavities, a right and a left, uſually called *Ventricles*: from which there ariſe, and unto which there are annexed certain peculiar veſſels conducing to the ends hereafter ſpecified. Out of the right ventricle of the heart, proceed the great vein called *Vena Cava*, which ſends forth branches throughout the whole body, and hath at its entrance into the heart, certain portals, from their form called *valvulæ tricuſpides*; And alſo that Artery, anciently called *vena arterioſa*; inſerted into the lungs, unto whoſe original are annexed, the portals reſembling the Greek *Sigma*, and are therefore called *valvulæ ſigmoideæ*. Out of the left Ventricle proceed that vein anciently called *arteria venoſa*, inſerted in like manner into the lungs; and alſo the great Artery, called *Arteria aorta*, which diſpenſeth its branches throughout the whole Body, both whoſe Cavities are defended with the like portals with the former. It remains onely that we ſhew how the blood and life is

actuated in these parts, and how it passeth in, and through them, and in and through the whole habit of the Body; which is by way of Rotation, or running the round, going out from the fountain, and returning thither again. Eccles. 1. Vers. 5. *The Sun ariseth, and the Sun goeth down and hasteth to the place where he arose; The Wind goeth toward the South,* Verse 6. *and turneth about unto the North, it whirleth about continually, and the Wind returneth* Verse 7. *again according to its Circuits; All the Rivers run into the Sea, yet the Sea is not full; unto the place from whence the Rivers come, thither they return again.* Thus it pleaseth the King to express the Circulations of the greater World; those of the lesser are no less remarkable. The Blood wherein is the Life of Man passeth about the Body continually, and returns according to its circuits; the streames thereof run into the fountain, which is never full, unto the place from whence they come, thither they return again; which is by the Instruments before mentioned thus performed. The *Vena Cava* containing much blood in its cavity, neer the *basis* of the Heart, on the right side, doth gently pass it into the right Ventricle of the Heart, which is dilated in its *Diastole* for its reception, and immediately thereupon contracting its self in its

Systole

Syſtole (the three pointed Portals hindering the paſſage back again into the *Cava*) it muſt neceſſarily thruſt the blood through the open paſſage of the *Vena Arterioſa* (where the ſigmoidal Portals hindering its return) it muſt paſs through the Streiner of the Lungs, and ſo be received into the branches of the *Arteria Venoſa*, and thereby brought into the left Ventricle of the Heart, where again it is with violence pulſed forth into the *Aorta* (the Portals here as before alwayes hindering its regreſs) by the branches of which Artery it is carried to all the parts of the Body to enliven them, which work being done, what remaines is received into the Capillaries of the Veines in the ſeveral parts, whence it paſſeth of its own accord naturally towards its Center, from the leſſer into the greater branches of the veines, and conſequently at laſt into the great Trunk of the *Cava*, from whence it is recommitted into the right ventricle of the Heart, to be chaſed the Foyl. This is the true Doctrine of the excellency and motion of the blood, and of the uſe of the Heart, and the parts appertaining thereunto; all which were perfectly known to *Solomon*, as will abundantly appear anon, in the explication of the ſymptomes we are now about. Yet it pleaſed the Lord that this knowledge

ſhould

ſhould with the poſſeſſor of it, ſink into duſt and darkneſs; where it lay buried for the ſpace of 2500 years at the leaſt, till it was retreived thencefrom by the wiſdome and induſtry of that incomparable, and for ever to be renouned Dr. *William Harvey*, the greateſt honour of our Nation, and of all Societies of which he was a Member, who ſtands, and ever will do, with the higheſt note of Honour in the Calenders both of Phyſicians and Philoſophers, and it were but juſtice to put him with the ſame eminence into that of the Church, ſince he hath Contributed more to the underſtanding of this, and many other places of Scripture, then all that ever undertook that Charge.

Theſe things being throughly weighed, and well underſtood, the two ſymptomes which remain to be ſpoken to, do open themſelves into the ſame Doctrine without any more ado. By the Pitcher therefore we muſt underſtand the true and proper conceptacle of the Blood, namely the *Veines*, which throughout the whole body ſerve only as a veſſel, to contain that noble Liquor, and carry it back again to the Fountain. The Original word כד ſignifieth ſometime more generally any containing veſſel, and ſo is taken for the Widows Barrel in which

1 King 17. 14.

was

was the meal, but more eſpecially that which is called a pitcher, and ſo more frequently it is uſed. This word both the Greeks and the Latines take unto themſelves, only varying the Termination as is moſt proper to each Language, and that in the very ſame ſignification. Now the proper containing Veſſel for the bloud is the Veins, there the bloud is, as I may ſay, at home, in its own place; while it is in the heart, it is preparing, enlivening, and enobling; while it is in the Lungs, and all the other Parenchymous parts of the bowels, it is depurating and cleanſing; while it is in the Arteries, it is by force journeying; while it is in the Poroſities of the fleſhy parts, it is communicating of life, and nouriſhing; but while it is in the Veins, it hath no force upon it at all, nor is it doing any thing of general uſe to the Body, only conſulting its own good, and tending in its own natural courſe to its proper Center; as milk is in the breaſts, and marrow in the bones, ſo is bloud in the veins, and therefore theſe are the Pitcher here intended. This Pitcher alſo hath its Ear, which is uſually called, *Auricula Cordis*; which (notwithſtanding its name, as if it moſt properly appertained to the heart) yet we muſt know doth rather belong to the vein, and

Gen. 24. 6. Judg. 7. 1.

and is indeed a part thereof, and not only a part, but the principal and primary part thereof, from whence all other parts and branches do ariſe, as from their original, and whereunto all the bloud of the body by the Compreſſive motion of the Veins, doth naturally tend, as to its ultimate hold; and whence-from it will in no wiſe depart but by force; and therefore this head-ſpring of the veins being dilated by the continual afflux of bloud, is neceſſitated to eaſe it ſelf by Contraction, and ſo conveniently forceth out a due proportion of bloud into the Fountain, whereunto it is annexed.

Now the *Fountain* can be no other than the right Ventricle of the heart, for this is yet more ſtrictly the fountain of life, and forge of the vital ſpirits, and it doth ſenſibly live before, and dye after, the other parts, even of the heart it ſelf; Moreover, here it is, that the matter of our nouriſhment receiveth its firſt enlivening, for our food being received from the ſtomack and guts into the common paſſage of Chyle, is thence-from carried directly into the ſubclavial branch of the *Vena Cava*, where being mixed with bloud, it yet remains lifeleſs and heartleſs, till being carried along that vein, it is at laſt brought into

into the right Ventricle of the heart; wherein the heat, motion, and ferment, ſet the active principles thereof at a perfect freedom, and ſo inſtantly endow it with plenty both of life and ſpirit. Thus richly fraught, doth the bloud paſs out of its fountain, and, by the waies before deſcribed, it is brought to all the parts of the body, where parting with much of its lading for their ſuſtentation, and being refrigerated by the coldneſs of the extremities, and the ambient air; it would ſoon be coagulated, and altogether barren, did it not return again to the right Ventricle of the heart, as unto its own fountain, to recover its former perfection. This part therefore, that doth at the firſt give life to that which enliveneth the whole man, and doth, as often as it returns thither, imprægnate it anew with the ſame, muſt needs be the fountain here intended. And to this the Original word gives an extraordinary clearneſs; implying, not only the *Signum*, but the *Signatum*; not the Hieroglyphick only, but the part thereby deciphered: ſignifying in the firſt place, *Fons*, a Fountain; and ſecondarily, *Scaturigo Venarum*, the ſpring or original from whence the Veins ariſe; and this is ſo clear, that made ancient Commentators

interpret

interpret the Fountain here unto the Liver: Now, had they been right in their natural knowledge; that is, had they known that the Veins do not arise from the Liver, as from their first original, but from the right Ventricle of the heart, (as all knowing men now confess they do,) they had without all doubt, by the guidance of this most significant word, pitched upon the true meaning of the place.

These Vessels being throughly understood, we must farther know, that so long as man remains in perfect health and strength, they are unceasantly and carefully performing all those offices unto which they are appointed; but this natural Course doth not continue for ever, for this Pitcher is but an earthen Vessel, and doth not so often go to the Fountain, but at last it comes broken home. This breaking of the Pitcher here (which is the Symptome of old age just upon the point of death) is the failing of the Veins, their ceasing from their natural action and use, when they can no longer carry back, nor conveniently pass into the heart that liquor, which they properly contain. That little bloud that remains in the cold body of man near his end is soon Coagulated, and stagnating

ſtagnating in the Veins, the motion and circulation thereof is hindered, and ſo it becomes thick, like unto the pith of Elder; And becauſe it cannot return to the fountain, for a redintegration of its life and ſpirit; it dyeth in the veins, and ſo all the extream parts of the body become ſpiritleſs and cold; which is the Symptome here intended. *Frigiditas extremorum* is acknowledged by all that have conſidered that ſubject, as one of the moſt certain ſigns of approaching death. And our great Maſter of Prognoſticks, in that compleat and yet compendious book of his Aphoriſms, doth once and again, not out of forgetfulneſs, but out of earneſtneſs, that it may more eſpecially be taken notice of; give us that famous Maxime, Ψυξις ἀκροτελεύτιον, θανάτιμον.

The wheel broken at the Ciſtern.

The Symptome laſt ſpoken of, had reference to the Inſtruments of the vital Faculty, which ſerve for importation, and reception of the bloud and ſpirits; this that we are now ſpeaking to, hath reference to thoſe, which ſerve for exportation and rejection of the ſame.

The bloud (as was before obſerved) naturally, of its own accord, tends in the veins

veins, unto the heart; but it returns not from the heart, into the parts of the body, but by force: Thus all the Rivers in the Land naturally ebb into the Sea, but they flow not thence-from, any farther, than the violence and impulse of the Sea extends. The bloud, being once forced from the heart, is presently received into the Trunk of the great Artery, called the *Aorta*; and by the branches thereof is carried to all the parts of the body. This therefore being the chief and principal instrument of Rotation, or Circulation of the bloud, is most aptly intimated unto us by a Wheel. For what is a Wheel, but an instrument of Circulation? And what can a Wheel be an Hieroglyphick of, but of something that goes, or makes the round? And this is so obvious to every one, that all that have ever Commented upon this place, have been still hammering at some such thing. Some therefore have interpreted this place to the life of man, which passeth as in a Ring, according to that saying, κοινὰ πάθη πάντων, ὁ Κύκλος τροχός. Others have interpreted it, to the death of man, when his compounding parts shall revert into the first beings.

Cedit enim retro, de terra quod fuit ante,
In terram, &c.

And

And ſo they make this expreſſion explained at large in the following verſe; *The duſt ſhall return to the earth as it was, and the ſpirit ſhall return to God that gave it.* Others interpret it to the reciprocal Communications between the heart and the head; the heart continually ſending to the head, bloud and vital ſpirits; and the head again returning them to the heart, ſublimed inſtruments of animality.

Laſtly, There are that ingeniouſly interpret it to Reſpiration, which is performed by a circular motion, Inſpiration, and Expiration continually ſucceeding one another in their Courſes. All theſe Archers have ſhot exceeding well, and have hit the *But*, (while many others have ſhot at Rovers,) yet theſe not being able to diſcern the *White*, have not touched that principal Mark. I mean, the grand Circulation in mans body, not being known to theſe ancient Commentators, they have done the beſt that could be in the ſecond place. What this grand Circulation is, and how performed, hath been already deſcribed; and thoſe veſſels that are inward bound, which bring home the noble Travellour, the encompaſſour of the little World, were deſcribed in the Explanation of the foregoing Symbole; but thoſe which are

outward bound, which carry him forth with all his wealth and ſubſtance to accompliſh his intended end, are here intimated unto us by the Wheel. That the great Artery, with all its branches throughout the whole body, is here principally pointed at, hath been already ſaid; and may be farther confirmed; firſt, in that it anſwers ſo directly to the vein ſignified in the laſt Symptome, by the Pitcher. Secondly, In that it is to us the moſt apparent Pulſor; we can feel the bloud to be forced along its Cavity, in the Wriſts, the Temples, and divers other parts of the body. Laſtly, in that it is ſo appoſitely placed at the Cock of the Ciſtern, as you ſhall hear hereafter. Yet we muſt not ſo limit this Wheel to the Arteries, as to exclude the very ſubſtance and Parenchymous part of the heart it ſelf: For upon whatſoever Inſtruments the pulſifick faculty is exerciſing it ſelf, they are all here intended, by the Wheel; for they are they, and they only, that carry off the bloud from the fountain, and force it from the Center of the body, to the Circumference. Water may eaſily be conveyed in Trunks or Pipes, by its own natural tendency only, unto all thoſe places that are beneath or level with the Spring from whence it firſt comes; but if you

you would have it of a farther uſe, to ſerve thoſe places that are higher than the ſpring, you muſt then fetch it up with violence, by a Wheel, or ſome ſuch Inſtrument of force, as is to be ſeen in our Water-houſes, and all ſuch ingenious Inventions of publick good. Thus all the bloud in mans body is, in certain Pipes and Trunks, by its own natural tendency only, brought home to the heart; but it will in no wiſe go farther, to be of a more general uſe to the whole body, till it have ſome Inſtrument of force to compel it thence-from; The Pulſifick faculty is the mover, and the Inſtruments of Pulſation the Wheel, that performs this work, that is of ſo publick a concern to the whole.

The Ciſtern from whence this Wheel forceth that liquor which afterwards it conveyeth throughout all the parts, is the left Ventricle of the heart, for hereunto it is, that the great Artery is annexed, and from hence it doth ariſe. A Ciſtern is a Veſſel made on purpoſe to receive a due proportion of water, and to contain it till the time of uſe, and then conveniently to paſs it into thoſe other veſſels, that are appointed to receive it thence-from. And thus the left Ventricle of the heart doth in its *Diaſtole*, receive that bloud that is

brought unto it by the *Arteria Venosa* of the Lungs, and having retained it a little, it doth in its *Systole*, conveniently pass a due proportion thereof into the *Aorta*, to be dispensed as was spoken before; And this is the true and only use of the left Ventricle. For the bloud being enobled and enlivened in the right Ventricle, and refrigerated, and cleansed from its fuliginous vapours in the Lungs, it is now in all things accomplished for its ultimate use, and remains only to be sent, into those several parts it is to quicken, which it cannot conveniently be, unless it be first received into this Cistern, and afterwards by the Pulsifick Faculty and Instruments, be disposed of, to that appointed end; and we cannot but here remind, those portals that are placed, both at the entrance into, and passage from, the vessel we are now speaking of, namely, the *Valvulæ tricuspides & sigmoideæ*, which as the Cocks to let in, and let out, do by their opening or shutting give convenient passage, or absolute stoppage to that liquor which continually runs that way.

It cannot but by this time be acknowledged by all those that have gone along with us, and taken special notice of the aptness of these two expressions, *viz. The*

Pitcher

Pitcher at the Fountain, and the Wheel at the Ciſtern, to ſymbolize unto us the circulation of the bloud, and the uſe and action of the heart, and the parts belonging thereunto; that the Doctrine which is now juſtly called *Harvaan*, was at firſt *Solomonian*. For as it pleaſed God in theſe latter daies to give in this certain and moſt uſeful knowledge, to the induſtrious and indefatigable endeavours of the Learned Dr. *Harvey*; ſo did he of old, give in the ſame, unto King *Solomon* in the lump, together with all other natural knowledge, as a ſuperabundant anſwer to his fervent and effectual Prayer; which great truth being confirmed by the powerful reaſons and ocular demonſtrations of the one, and by this divine teſtimony of the other, let it not be for the future in the leaſt meaſure doubted or queſtioned; but let it be greatly prized, and ſo much the rather, becauſe (while many others of great importance, wherein theſe two Worthies doubtleſs agreed, have periſhed by the way,) this only from them both, hath eſcaped ſafe to our hands.

It remains now, that I only name unto you that Symptome of Old Age, at the time of death; that is here ſignified unto us, by the Wheel broken at the Ciſtern;

which cannot but be underſtood, to be the ceaſing of the Pulſe; the Inſtruments of Pulſation decay, and can no longer perform that work, which muſt neceſſarily be continued for the preſervation of life; *It came to paſs when the Lord had a purpoſe immediately to deſtroy the Hoſt of the Ægyptians, that he looked upon them, and troubled them, and took off their Charet wheels, that they drave heavily.* Whenſoever it is the good pleaſure of God to give that word of Command, that the Tabernacle of our bodies, ſhould be as they were; his purpoſe is eaſily diſcerned before-hand by his looking upon us, and troubling us, and giving diſturbance unto, and taking off, thoſe Charet wheels, upon which our life is turned; but yet this is far more apparent in the time of Age, for then the Charet wheels are more ſenſibly hindered and removed, and ſo taken off by degrees. The old mans Pulſe doth yearly and dayly decline, both in reſpect of the mover, the ſtroke and the intervall; ſo that it muſt needs beat more languidly, ſlower, and ſeldomer than it did before. The Faculty grows weaker, the uſe is not ſo urgent, nor the Inſtruments ſo vigorous, in age, wherefore all the Cauſes of a quick and a lively Pulſe failing, the ſad effect thereof muſt

Exod. 14. 24, 25.

muſt undoubtedly follow; nor will it ever ceaſe declining, till it ceaſeth beating, and then the man immediately ceaſeth living; *Pulſus, rarus, tardus, languidus & non-nunquam intermittens*, is the true pulſe of the old man, all the while he is in that condition, and is like unto the toling of a paſſing-bell, which may put him and all his friends in mind, that he is ſhortly going the way of all fleſh, but *Pulſus omnino abolitus ſive aſphyxia*, (which is the Symptome here mentioned,) is the condition of the dying man, and is like the ſtinting of the Paſſing-bell, or rather the ringing out of the Knell, which gives notice unto all that he is gone, and may ſerve as a loud, and diſtinct invitation to the Funeral.

And thus I have as plainly, and as briefly as I could, run over all theſe myſtical Symptomes; both thoſe that attend a man all the time of his declining age, and thoſe that more immediately forerun, and foretell his laſt change. And now I judge it time for me to deſiſt, when all ſenſe and motion, both in the Rivulets and Fountain is quite taken away, when there is death in the face, when there is a coldneſs in the extremities, and an utter abolition of the Pulſe, there is no more room for the Phyſician, or

ſpace given him to intermeddle any longer: Thus far I hope I have kept within my bounds, and given no offence to thoſe jealous Overſeers, to whom only the interpretation of Scripture is deemed to belong; this Subject hath been purely Phyſical, wherefore in the proſecution of it, I have not exceeded my own Laſt, nor made a breach upon that politick Rule:

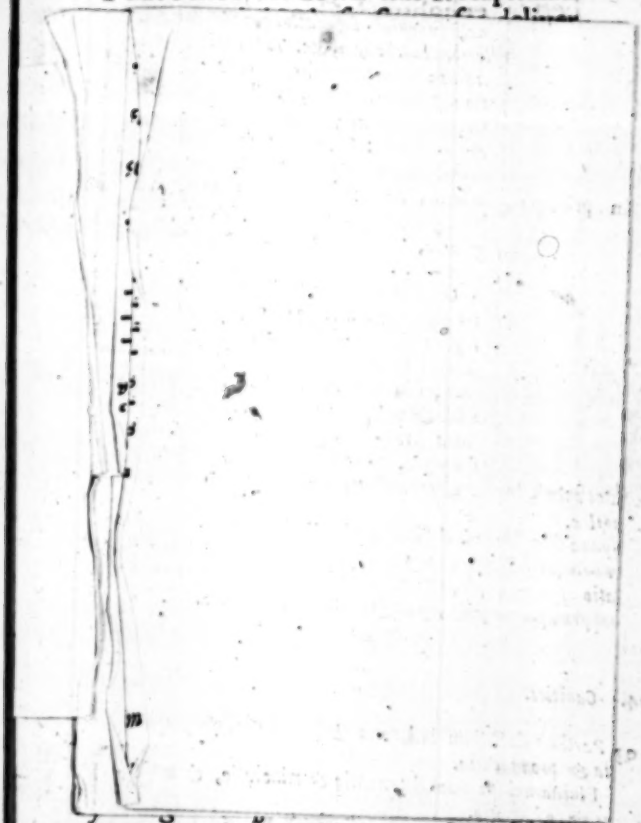
Quod medicorum eſt,
Per tractent medici; tractent fabrilia fabri.

It remains only that we review, and ſum up, what hath been here ſpoken, and ſo gather cloſe together that plentiful crop of miſeries which this Earth we bear about us, naturally produceth.

Febre caret ſola, circumſilit agmine facto,
Morborum omne genus.

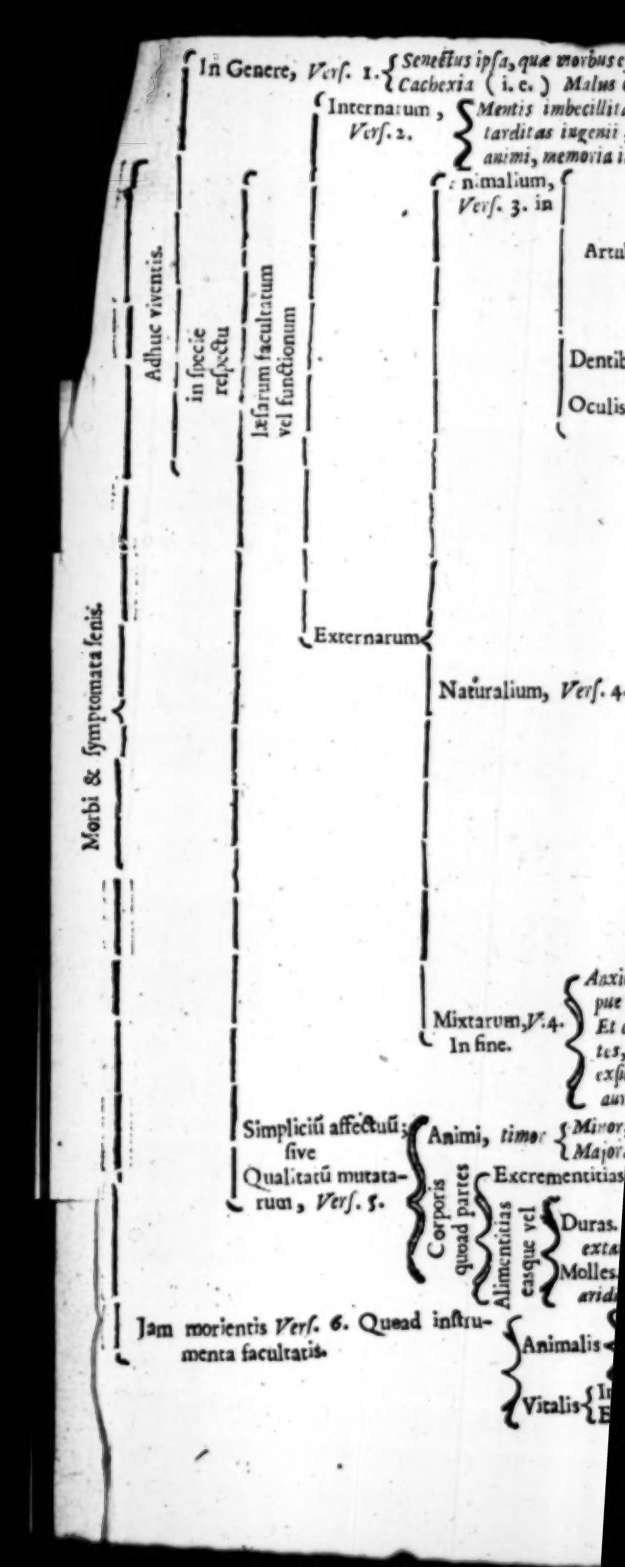
Feavers ſet aſide, there is ſcarce any infirmity incident to the body or mind of man, that is not predominant in Age; the Old man is beſet with a troop of diſeaſes, when he is not able to reſiſt a ſingle one, and therefore muſt be ſubject to them all, as hath been ſaid, and is reſumed in the following *Anacephalæoſis.*

I have here set down this Recapitulati-



Man, though placed in never so eminent a Chair, who can, in the Interpretation of Scriptures of much higher concernment then this, give an infallible judgment, or pass things from under his hand so found

and


Morbi & symptomata senis.
Adhuc viventis.
In Genere, Vers. 1.
Senectus ipsa, quæ morbus e
Cachexia (i. e.) Malus
in specie respectu
Internarum, Vers. 2.
Mentis imbecillit
tarditas ingenii
animi, memoria i
Læsarum facultatum vel functionum
animalium, Vers. 3. in
Artu
Dentib
Oculis
Externarum
Naturalium, Vers. 4
Mixtarum, V. 4. In fine.
Anxi
pue
Et
tes,
exſ
au
Simpliciū affectuū; sive Qualitatū mutatarum, Vers. 5.
Animi, timor
Mivor
Major
Corporis quoad partes
Excrementitias
Alimentitias easque vel
Duras.
exta
Molles.
arid
Jam morientis Vers. 6. Quoad instrumenta facultatis.
Animalis
Vitalis
In
E

morbus est, etsi naturalis.
Malus Corporis habitus.
becillitas, hebetudo, stupiditas, fatuitas, μώρωσις (i.e.) stultitia, ingenii, judicii defectus. Ἄνοια, amentia, melancholia, desipientia emoria imminuta, abolita. Vertigo, Carus & Apoplexia.

Artubus in genere { *Omnes infirmitates, motus & sensus impotentia, & hebetudo, rugositas, languores, dolores, convulsiones, rigiditas, macilentia.*

Artubus in specie { *Tremor artuum; contractiones; abbreviationes & incurvationes eorundem.*

Dentibus { *Siccitas, vacillatio, putredo, cavitas, scabrities, nigredo; præcipuè casus, & defectus; seu raritas.*

Oculis { *Corrugatio, vel relaxatio uveæ tunicæ, suffusio ex Cruditate, caligo, glaucoma, Zinifisis.*

, *Vers.* 4. In principio { *Dejectus appetitus, imbecillitas stomachi, fæces alvi indebitæ, obstructiones omnes; pulsus debilis, rarus, tardus, mala sanguinis defæcatio, quoad serum, bilem, melancholiam, &c. Tonus partium vitiatus; carnis ariditas, indebita perspiratio: Cessatio mensium, papillarum penuria, & lividitas; mammarum flacciditas, & rugositas: Impotentia & inappetentia concubitus, vasorum spermaticorum imbecillitas, & νέκρωσις, testium & partium propagationi dicatarum cachexia, & refrigeratio, totius corporis languor, & marcescentia.*

Occlusio labiorum contra cibum, obseratio pharyngis, utriusque orificii ventriculi, deglutiendi difficultas, impotentia reserandi in omnibus arteriarum & venarum, imo omnium internarum partium ostiis & valvulis; pororum constrictio, dysuria stranguria, ischuria, alvi adstrictio seu pigra, tardaque naturalis depositio.

4. { *Anxietates animi, inquietudines nocturnæ, dolores corporis, præcipue vigiliæ.*
Et dyspnæa sive spirandi difficultas, distillationes tussim inferentes, ἀφωνία, αἰτυδία, sive vocis abolitio, diminutio aut depravatio; exsiccatio aspera arteriæ, induratio Cartilaginum laryngis, sordes auriam præcipue barycoia, sive gravis auditus & surditas.

{ *Minor,*
Major.

mentitias. *Canities.*

{ Duras. *Partium ductilium induratio & incrustatio, & fragilium extantia & prominentia.*
Molles. *Fluidarum partium depravatio & minoratio, & mollium ariditas & consumptio.*

imalis { Extra Cranium. *Paralysis particularis & universalis.*
Intra Cranium. *Omnium sensuum subita abolitio cum fa[illegible] Hippocratica.*

talis { Importantia. *Frigiditas extremorum.*
Exportantia. *Pulsus abolitus.*

I have here ſet down this Recapitulation, that what is in theſe ſix verſes delivered, may be compared with any, or all thoſe Syſtemes of the diſeaſes of Age, which have been given us by *Hippocrates*, *Galen*, or any of their followers; by *David de Pomis* the Jew, *Franc Fogerolæus*, or *Franc. Ranchinus*, or any other Heathen or Chriſtian, that have antiently or modernly treated of this Subject; and let preference be given to the moſt worthy. I would fain have the Crown to be put upon the Head of the King, his wiſdome onely, among all the reſt, being pure and from above: which that it may be, I would in no wiſe have the comment delivered by us, but the Text delivered by *Solomon*, to enter the Liſt of Compare. The Pen-man of the Allegory, without all doubt, throughly underſtood the Subject, and fully declared it, in theſe Ænigmatical Phraſes: the Interpreter, like his Fore-fathers, may come very far ſhort of underſtanding the whole Truth, and poſſibly may in ſome places miſs it; *In many things we offend all.* I know not that Man, though placed in never ſo eminent a Chair, who can, in the Interpretation of Scriptures of much higher concernment then this, give an infallible judgment, or paſs things from under his hand ſo ſound

and

and perfect, which a more knowing, and a better enlightned Generation, may not find juſt cauſe to Correct. If what I have ſaid, may ſerve only to tell Men, that there is a Treaſure hid in this Field, and withall to ſhew of what nature, and what value it is, and which way the veines of it do ſecretly paſs under ground, I ſhall have my full end thereby. For howſoever I may, in my own ſearch, in digging and delving after it, mix earth, and dirt, and rubbiſh, with Silver, and Gold, and precious Stones; yet it will, without all doubt, give occaſion to all thoſe, who love and long after the Acquiſition of ſuch Treaſures as theſe, to come to the place where they are to be had. The Word of God doth upon many Subjects of Natural things, though but briefly and incidently mentioned, give a clearer and more ſure light, then all the voluminous Writings of the whole ſhoale of Heatheniſh Philoſophers. *He that planted the Ear ſhall he not hear, and he that made the Eye, ſhall he not ſee? he knowes our frame*, and the frame of all things that he hath made; and therefore whatſoever he ſaith concerning any of them, ought moſt diligently to be hearkned unto, as to the beſt and trueſt word that was ever ſpoken about them. This great Truth, I know, many Learned

Pſ. 94. 9.

Pſ. 103. 14.

Men

Men are not aware of, and none buy those that do חקר, search the Scriptures, and dig in them, as for hid Treasure, can ever understand. The labour that I have taken upon these six verses, I am so far confident of, as that it hath made this truth appear upon the Subject we are now treating of, as I have already done upon some others, especially that, *De formatione fœtus in utero materno.* And following the commendable intentions of *Levinus, Lemnius, Vallesius, Rueus,* and other Learned Men; and the Pious Exhortation of the Honourable Mr. *Boyle* thereupon, if God give me life and opportunity, I may yet further cultivate the same Theame. My design is plainly to perswade Men to be in love with the Scripture; that as some looking after eternal Life, have therein by the way, found out many Natural things; so others looking after Natural things only, may yet far more happily find eternal Life: like *Zacheus* gazing after the Novelties of the World, and yet being in the way where *Christ* passed by, they may hear that joyful voice of Salvation being brought to their House; *Nescio quo modo sacrorum librorum lectio, etiam historica aut Physica, animum pietate imbuit latenter.* This eternal concern is the principal drift of these Holy

Natural Philosophy, p 31.

Vallesius sac. Philoso. in proæmio.

Holy Writings of God, yet they are every where besprinkled with abundance of other Truths of less concernment, which will give great delight and satisfaction to the diligent enquirer: For they are as the Garden of God, *Wherein groweth every Tree that is pleasant to the sight, and good for food, the Tree of Life also in the middest of the Garden.* I must confess with others that there are many Natural things herein contained, that are inconsistant and contrary to what we have learned in the Schooles, but that matters not; let us be sure to make God wise, and him true; though every Man a fool, and a liar. There are also some things which will startle and amaze the best humane reason, nay, that which is much farther, some things that our senses will hardly give consent unto; yet in all these difficult cases, I have had a ready solution (which although it will not untie all those intricate knots I meet with, yet it will loose them, which is full as satisfactory) and that is, that grace and gift of God which is ἐλπιζομένων ὑπόστασις, & πραγμάτων ἔλεγχος ὁ βλεπομένων.

Gen. 2. 9.

Heb. 11. 1.

I have I hope by this time done a double good work, on the one hand I have vindicated our profession, from all those abominable and filthy scandals, that impudent and

and malevolent Persons have been apt to cast upon it; as though the studies we addicted our selves unto, did (like the Sin of *Adam*) naturally make us run from God, and hide our selves from him, and patch up some perishing remnants to cover our nakedness, after our own contrivances: whereas in truth, there is nothing in all the World, that Man can be busied about, that will sooner bring him to God, then the earnest beholding him in the Book of the Creatures; there is not the most contemptible being, which by virtue of the Almighty *Fiat*, at first started out of nothing, that will not (if it be throughly searched and followed) at length bring us home to its eternal Father; *As of him, and from him, and through him*; so *to him also are all things, to whom be glory for ever.* Rom. 11. 36. But how much more shall we be instructed in this Divine Lesson, by intimately contemplating that Heavenly Work of Works, the summ and height of the visible Creation, that honourable piece, *tantum non* Angelicall, in which the Creatour himself, rested in time, delighted from Eternity, being the true pattern of his own Divine Image; *Man.* And God in his Providence having so ordered, that the Holy Writings should begin, with the History of the Creation of

all

all things, and laſtly and chiefly of Man; doth plainly teach us this leſſon, that none are ſo Idoneous hearers, or ſo meet receivers of the words of his mouth, as thoſe that have firſt well underſtood and abundantly admired the Works of his hand. All which fall under our conſideration, as the proper ſubject of our knowledg, but chiefly the chiefeſt, which cannot but in the end bring us to him, who made and knowes all things, as the ſaying of the Woman did the *Samaritans*, and being hereby brought unto him, we afterwards hear him our ſelves, and believe now, for his own word ſake; *That he is God, and the Father of our Lord Jeſus Chriſt, the Saviour of the World.*

John 4. 39. 42.

We are ſo far from ſlighting or contemning the Scripture, that we are the great admirers of it, and do endeavour to advance it above all other Writings whatſoever, and that even in Natural things, though never ſo accidentally or curſorily handled; and we had rather that all our other Books, though very curious, and greatly valuable, ſhould be burnt; then that one line, nay one letter, one jot, or tittle of it ſhould in any wiſe paſs away.

And on the other hand, I hope I have perſwaded and prevailed with all my own Brethren,

Brethren, to be more wiſe for themſelves, and more wary in reſpect of others, then ſome ſevere and jealous-headed cenſorours have judged them to be: that we may none of us give the leaſt occaſion for any one to ſpeak evil of the things they underſtand not; but by taking heed to a ſure Rule, we may bring perpetual honour to our own faculty, and ſhame to the looſe profeſſors of a better. A light and ſuperficial knowledg of Natural things, may indeed conſiſt with Atheiſme, but a deep and a profound ſearch into them, doth bring Men back again to God, and neceſſarily bind them over to Religion. *Solomons* Wiſdome ſtayed not in the Creatures, though he perfectly knew ſo great a variety; but did from them onely (as it were) take its riſe, and mount higher then the Cedars, even into Heaven its ſelfe, and there onely could find its reſt, from whence it had its firſt beginning, like the ſpirit of man, *returning to God that gave it.* Let no Man think he hath ſufficient knowledg in Natural things, who hath not by them been directed to Divine, or that he hath viewed the Creatures enough, who hath not been lead through them to the Creatour. Nor ſhall ever any one have my conſent to paſs for a Philoſopher, who keeps himſelf ſo ignorant of the Scripture,

Act. 17. 23. Scripture, as with Devotion to admire that Academical Inſcription, ἀγνώστῳ θεῷ. Knowledg Natural and Spiritual are not ſo contrary one to another, but that they may very well agree together, and cohabit in the ſame Manſion: nay, they are greatly conductive to the growth and promotion of each other. None can be a better Evangeliſt then the beloved Phyſician, and none ſo compleat a Phyſician, as he who is frequently converſant in the Word of God; and able to Evangelize: For that is the Fountain that ſends forth plentifully of both theſe Waters, and *is alone able to make a Man perfect, throughly furniſhed to every good work.*

Now in the laſt place I muſt acknowledge, upon the review of what is here written, that there are many things herein (I my ſelf being Judg) which might have been delivered after another manner, much more conſonant to thoſe plauſible and probable Doctrines which are the products of the Induſtry and Ingenuity of this Inquiſitive Age. It is far more eaſie to be Sceptical, and to overthrow the poſitive aſſertions of others, then to produce anew thoſe which will prove more firm and laſting, or to inſtaurate better in their room. But I queſtion not but the good intention here-

of,

of, will among all honeſt and Candid Perſons, in ſome meaſure, compenſate for all thoſe miſcarriages; eſpecially ſince by this leading attempt, in a way ſo obſcure and difficult, and withall ſo untrodden, Men of the greateſt parts and abilities will be induced for the future to ſtep into, and to become painfull labourers in the Vineyard of God.

Which will be a moſt acceptable work to the whole Chriſtian World, and moſt honourable to themſelves; For as *Hiram* was eminent in *Tyre*, for his Wiſdom, Underſtanding, and Cunning in all manner of Workmanſhip, yet that which crowned all his Excellencies, and renowned him to this very day, was, that he came to the adorning of the Temple of God at *Jeruſalem*. Thoſe Learned Men who exerciſe themſelves in Natural Philoſophy alone, produce onely Newes-Books for the preſent Generation, and ſo a little time doth conſume all together: Whereas the labour that is taken in the Word of God, is of a far more durable nature, and is like to run Parallel with everlaſting truth. 1 King 7. 14.

But yet more particularly, I cannot but call for help upon this individual Subject: It is my earneſt deſire that Phyſicians would ſtudy the Gerocomical part of Phyſick

ſick more then they do: And indeed no part wants our help ſo much as this; for among all the Verboſious *Gracians* there is not one compleat Tract upon this Subject onely: And there are but very few to be found among all other Writers, and thoſe ſo miſerable and barren, that the Readers are left exceedingly in the dark, and can ſcarcely be reſolved in the firſt queſtion belonging thereunto, namely to what part of Phyſick it moſt properly appertaines. That one Aphoriſme of *Hippocrates* which a Man might eaſily prove (would it not give occaſion to ſome foul-Mouthed Libellers farther to detract from the reverence due to Antiquity) is not *Totum teres atque rotundum*, perfect and compleat in all things, hath ſcarce been out-done for theſe 2000 ſucceeding years.

Lib. 3. Aph. 20. ult.

Now, as this part of Phyſick needs it moſt, ſo I am as bold to ſay, it is as capable of improvement as any other part whatſoever; And the improvement that may be made thereof would be as uſeful to Mankind as any one diſcovery of Nature, that hath at any time hitherto been made. Let none give over their Patients when they come to be burdened with the infirmities of Age, as though they were altogether incapable of having any good done unto them; for,

for, as this will argue great weakneſs and ignorance in the Phyſician, ſo it is exceeding cruelty to the Patient; For, as *the ſlothful in his work is brother to a great waſter*; ſo thoſe that are negligent towards their ancient Friends, are very neer of kin to thoſe inhumane *Barbarians* and *Americans*, who with great pomp and alacrity, both kill and devour them; thinking thereby they perform a moſt charitable office, in delivering them from thoſe incurable maladies, which will for ever render them miſerable: But ſure an induſtrious Artiſt may find out wayes to be charitable at a more merciful rate. The Methods which are already known to ſome more quick-ſighted herein then their fellowes, do abundantly teach us, that although a perfect cure is not to be propoſed or hoped for; yet a conſervative cure in reſpect of Age, and, a compleat Cure in reſpect of ſome of the diſeaſes before-mentioned, and a palliative in reſpect of moſt of them, may eaſily be effected. A convenient Diet, and meet Applications of proper Medicines (ſuppoſed alwayes, the bleſſing of God thereupon) cannot but preſerve old Men, and hinder and keep off thoſe Miſeries which otherwiſe would ſooner creep upon them, and give much eaſe, and very conſi-

ſiderable rebukes, to the violent aſſaults of all thoſe, that have already taken poſſeſſion: But thoſe things which are already known by the moſt knowing Men in the World, are little or nothing in compariſon of thoſe that remain yet to be known upon this Subject. The high and ſupreame matters thereof being yet unattempted by any, cannot but ſtir up more ſedulous and active Phyſicians to be aiming at leaſt at the attaining them; wherein if they ſhall not poſſibly accompliſh to their full ſatisfaction their intended purpoſe, yet ſurely they will much out-doe all thoſe who content themſelves with Projects of a lower Sphear.

Herberts Perivrhanterium.

——— who aimeth at the Skie,
Shoot's higher much then he that meanes a Tree.

The reaſons why Perſons in this Age fall ſo ſoon into this decrepit ſtate, and why the miſeries thereof are ſo multiplied and magnified upon them, is, becauſe either they call not in ſoon enough for help, or becauſe thoſe that are called in, either underſtand not, or minde not what they ought to do. An honeſt and an able Phyſician, may ſurely approve himſelf to his ancient Patient (as *Ruthe's* Son was to his

his Grandmother,) *A reſtorer of life, and nouriſher of old age.* Much, without all queſtion, may be done by humane knowledge, for the retarding and keeping off Old Age for a competent ſeaſon; and for the quitting and clearing of it, from that multitude of grievances that do ſo eaſily beſet it: Though the Completion of this work be reſerved in Gods own hand, untill he ſhall bring that happy ſtate upon his People, which was typified by *Moſes*, Who *when he was one hundred and twenty years old, had not his eye dim, nor his natural force abated.* And was plainly propheſied by *Iſaiah*, ſaying, *There ſhall be no more thence an infant of daies, nor an old man that hath not filled his daies, for the child ſhall dye an hundred years old.* Ruth 4. 15. Deut. 34. 7. Iſa. 65. 20.

And yet farther, it ſeems not to me in the leaſt incongruous to Chriſtian Religion to affirm, that life it ſelf may be prolonged. There are certain waies and methods that have a natural tendency in them either to life or death: *As righteouſneſs tendeth unto life, ſo he that purſueth evil, purſueth it to his own death.* Abbreviation and prolongation of life ſtand upon the ſame foundation, and the ſelf-ſame arguments either confirm them, or overthrow them both together. Now moſt Prov. 11. 19.

Pſal. 55. 23. certain it is, that *evil men ſhall not live out their daies*; And as certain it ſeems to me, that good men ſhall out-live their daies, elſe what means that promiſe of additional life; Pro 3. 2. *My ſon forget not my Law, but let thine heart keep my Commandments, for length of daies, and long life, and peace ſhall they add unto thee.* Yet the words of Job 14. 5. *Job* are everlaſtingly true, *The daies of man are determined, the number of his months are with God, he hath appointed his bounds that he cannot paſs*; His Preſcience and Predetermination do not at all hinder the influences of naturall Cauſes, but he knows and diſpoſeth of them alſo, equally with their effects. And thus thoſe things, that are with us reputed the moſt contingent, are alſo fore-ſeen and fore-ordered, as well as others. 1 King. 22. 34. The drawing of a Bow of a certain man at a venture, was as well known and determined, as the death of that King that fell thereby. The whole Iſa. 38. Story of *Hezechiah's* life and death was alike predeſtinated; yet he was ſick unto death, and had then certainly died, had not God lengthned out his life yet fifteen years, and had he not followed his appointment in making uſe of the Plaiſter of Figs. *Pauls* moſt comfortable words in his dangerous Voyage to *Rome*,

There ſhall be no loſs of any mans life among you, was a true report of the ſure unchangeable and Eternal Counſel of God: Yet *had not the ſhipmen abode in the ſhip, they could not have been ſaved.* The death and continuation of life of every man, and of every individual living Creature is certainly determined; yet they ſhall both of them as neceſſarily follow their conſtituted means, as day and night, do the preſence or abſence of the Sun. Act. 27. 22, 31.

But yet once more, it is more than probable, that ſuch noble medicines may be found out and preſcribed, that may innovate the ſtrength of all the parts of old men, and bring their Temperament back again to equality; that may ſo fortifie nature, and conſume or expell whatſoever is contrary thereunto; as life and vigour may be reſtored to ſuch a meaſure, which may ſafely be called, The renewing of youth. It is ſaid of Captain *Naaman* the Leper, after he had made uſe of the Ordinance of God for his recovery, that *his fleſh came again like the fleſh of a little child, and he was clean.* And thus through the bleſſing of God upon our weak endeavours, we dayly ſee brought again from the Graves mouth, and reſtored to perfect health and ſtrength, many that were *Con-* 2 King 5. 17.

fecti morbo, ſpent and conſumed with a diſeaſe, and why ſome that are *Confecti ſenio*, waſted with age, may not in like manner be renewed, ſeems not at all impoſſible. Nay, this *Elihu*, one of *Jobs* friends, doth abundantly prove, from the power and providence of God, when he
Job 33. 25. ſaith; *His fleſh ſhall be freſher than a childs, he ſhall return to the daies of his youth.* And thoſe Critical returns of nature, (which are vulgarly called lightnings before death) that do uſually continue but for two or three hours or daies at the moſt; are notwithſtanding ſometime by the ſtrength of nature only; lengthned out to ſo many weeks or months; and there can no reaſon be given, why a skilful and ſucceſsful Artiſt, may not be made inſtrumental for the farther prolonging them, with greater comfort, to ſo many years or *Luſtra's*.
Rom. 8. 19, 2. The whole Creation now grown old expecteth and waiteth for a certain rejuveneſcency, with which ere long it ſhall ſurely be bleſſed: In the mean time, this is preſented unto us in a figure, in thoſe ſeveral Transformations and Renovations of the Ant, and Silk-worm, and many ſuch Inſectiles, which are ſoon brought to extream old age by their inceſſant labour, in recompence whereof, by a wonderful *Metamorpheſis*

tamorphosis they are renewed into brisk and lively Flies. And there are abundance of more perfect Creatures alſo, which depoſiting their old skins, or ſhels, or ſome ſuch emblem of their age, are at certain ſeaſons brought back again to a youthful ſtate, and ſuch are Snakes, Lizzards; Crabs, Creviſes; Eagles, King-fiſhers, and ſuch like; and why ſome ſuch thing as this, or at leaſt ſomething Analogous hereunto, may not be wrought upon man, the moſt perfect Creature of all the earth, I am ſure no one can give an account. *David* in his Doxology intimates, that there may, ſaying, concerning God in his Providences; *He ſatisfieth thy mouth with good things, ſo that thy youth is renewed like the Eagles.* Yet were not theſe things thus viſibly demonſtrated to us, God might in his πολυποίκιλος σοφία alter the Courſe wherein hitherto he hath manifeſted himſelf; And in ſome things he hath given us aſſurance that he will; the way that hitherto he hath been pleaſed to take to bring our bodies to glory and immortality, hath been through miſery, duſt, and darkneſs, but in the laſt day he will take a nearer courſe to do the ſame thing; *Behold, I ſhew you a myſtery, we ſhall not all ſleep, but we ſhall all be changed, in a moment, in the twinckling*

Pſal. 103. 5.

Eph. 3. 10.

1 Cor. 15. 51, 52.

ling of an eye at the laſt trump, for the Trumpet ſhall ſound, and the dead ſhall be raiſed incorruptible, and we ſhall be changed.

Theſe *Magnalia naturæ*, (*viz.* the preventing, alleviating, and curing (as far as is attainable) the diſeaſes before mentioned, the retarding of Age, the prolonging of Life, the renewing of Youth,) that have ſcarce entred the thoughts of Vulgar Pretenders to Phyſick; have been as unto the practick part under our Conſideration, with like care and induſtry, as what you here ſee in the Theory; and that from principles gathered up, not only from reaſon, reading, and experience; but from ſome eminent inſtructive expreſſions of Holy Writ, which are not obvious to every curſory and ſuperficial Reader: all which may alſo be communicated to you in a convenient ſeaſon.

7 AP 66

FINIS.

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